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INDEX

TO THE

MISCELLANEOUS DOCUMENTS

OF THE

HOUSE OF REPRESENTATIVES

FOR THE

FIRST SESSION OF THE FIFTIETH CONGRESS,

1887-'88.

IN TWENTY-SEVEN VOLUMES.

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	22	1
	23	1
	24	1
	25	1
	29	1
	34	1
	38	1
	44	1
	45	1
	46	1
	47	1
	48	1
	49	1
	50	1
	58	1
	60	1
	77	1
	82	1
	87	1
	90	1
	91	1
	95	1
	96	1
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VOL. XXII.

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1820,	7,691.
1821,	5,935.
1822,	4,418.
1823,	4,016
1824,	4,965.
1825,	8,543.
1826,	9,751.
1827,	16,719.
1828,	24,729.
1829,	12,523.
1830,	7,217.
1831,	13,039.
1832,	34,193.
1833,	29,111.
1834,	57,510.
1835,	41,987.
1836,	70,465.
1837,	71,039.
1838,	34,070.
1839,	64,148.
1840,	80,126.
1841,	76,216.
1842,	99,946.
1843,	49,013.
1844,	74,745.
1845,	109,301.
1846,	146,315.
1847,	229,117.
1848,	218,025.
1849,	286,501.
1850,	250,939.
1850,	57,384.
1851,	369,510.
1852,	362,484.
1853,	361,576.
1854,	405,542.
1855,	187,729.
1856,	186,083.
1857,	216,224.
1858,	111,354.
1859,	110,949.
1860,	141,206.
1861,	81,200.
1862,	83,710.
1863,	163,733.
1864,	185,233.
1865,	214,048.
1866,	278,916.
1867,	283,751.
1868,	265,853.
1869,	335,364.
1870,	288,591.
1871,	296,754.
1872,	381,459.
1873,	369,486.
1874,	208,059.
1875,	144,178.
1876,	114,548.
1877,	94,791.
1878,	111,382.
1879,	184,211.
1880,	442,096.
1881,	600,331.
1882,	603,086.
1883,	498,497.
1884,	407,606.
1885,	327,202.

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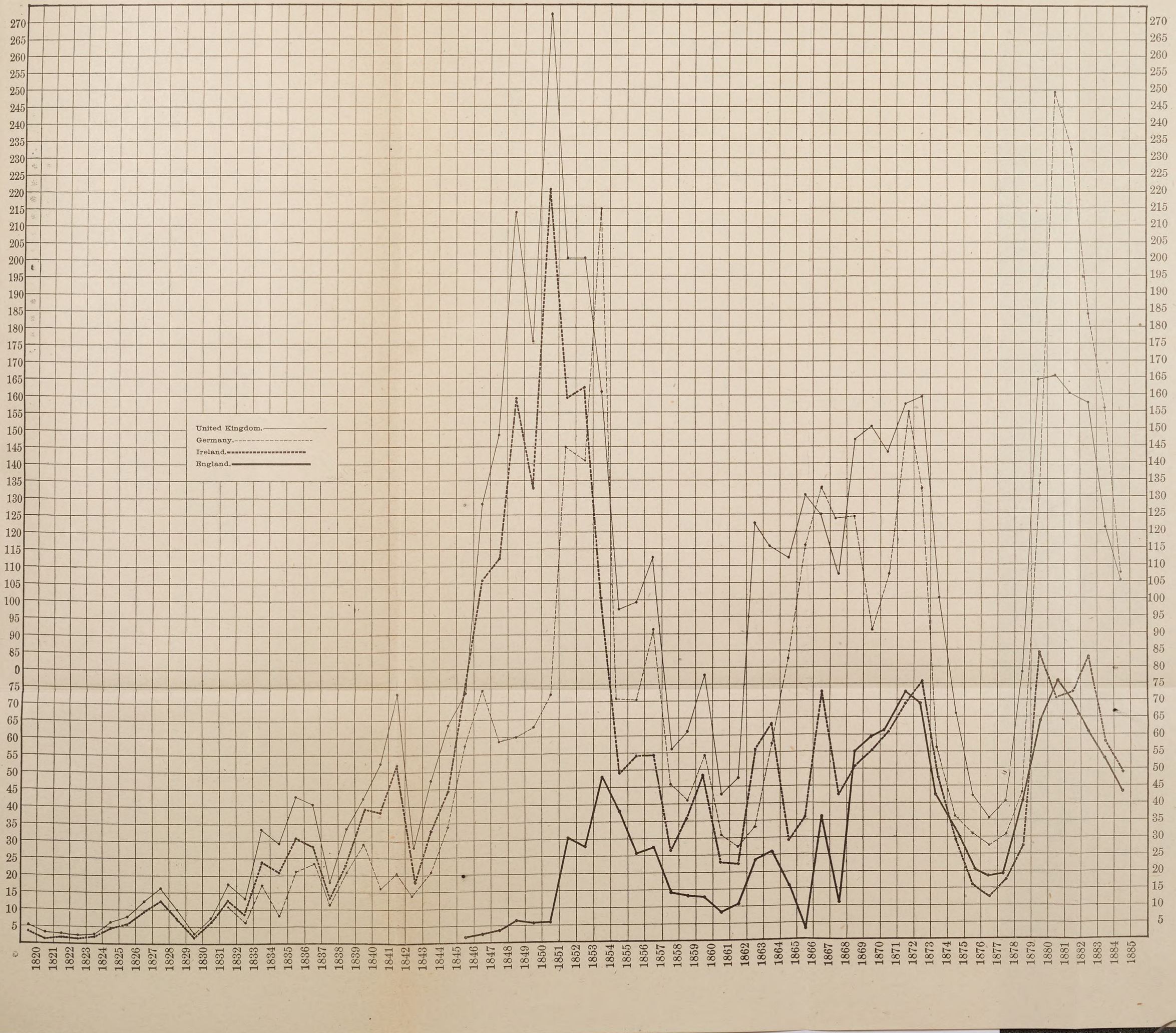
IMMIGRATION INTO THE UNITED STATES FROM THE UNITED KINGDOM AND GERMANY, 1820--1885.



CONSULAR REPORTS

ON

EMIGRATION FROM EUROPE.

No. 76.—April, 1887.

NOTE.

The following reports are selected from House Executive Document No. 157, second session Forty-ninth Congress, and are intended to give a general view of the actual conditions which control the emigration from European countries to the United States:

Department of State,
February 9, 1887.

To the President:

I have the honor to transmit a series of reports from consular officers of the United States on the extent and character of the emigration from their respective districts. As supplementary to this series, reports will be found from consular officers in Canada, Mexico, Central and South America, and Australia describing in general terms the nature of the immigration into those countries. Taken together these reports afford a complete representation of the movements of population from one country to another, the streams in which this movement flows, and the factors which determine the extent and direction of these streams.

To summarize the results of this survey would be almost impossible, as local influences are dominating causes, and the conditions in no two countries, even in no two districts, are the same. The prevailing motive of emigration is the desire to secure a greater degree of welfare, to move from a place where the struggle for existence is continuous and intense, to a place where a higher degree of prosperity may be obtained for the same expenditure

One feature of this subject, which received little attention in the consular reports, viz, the countries from which the highest proportions of skilled labor as compared with the total emigration are derived, has been outlined by tables prepared in this Department from the returns of the Treasury Department. The result tends to show that when the industrial welfare of the United States is considered, indiscriminate restriction of immigration would be quite as mischievous as indiscriminate permission is sometimes represented to be.

Respectfully submitted.

T. F. BAYARD.

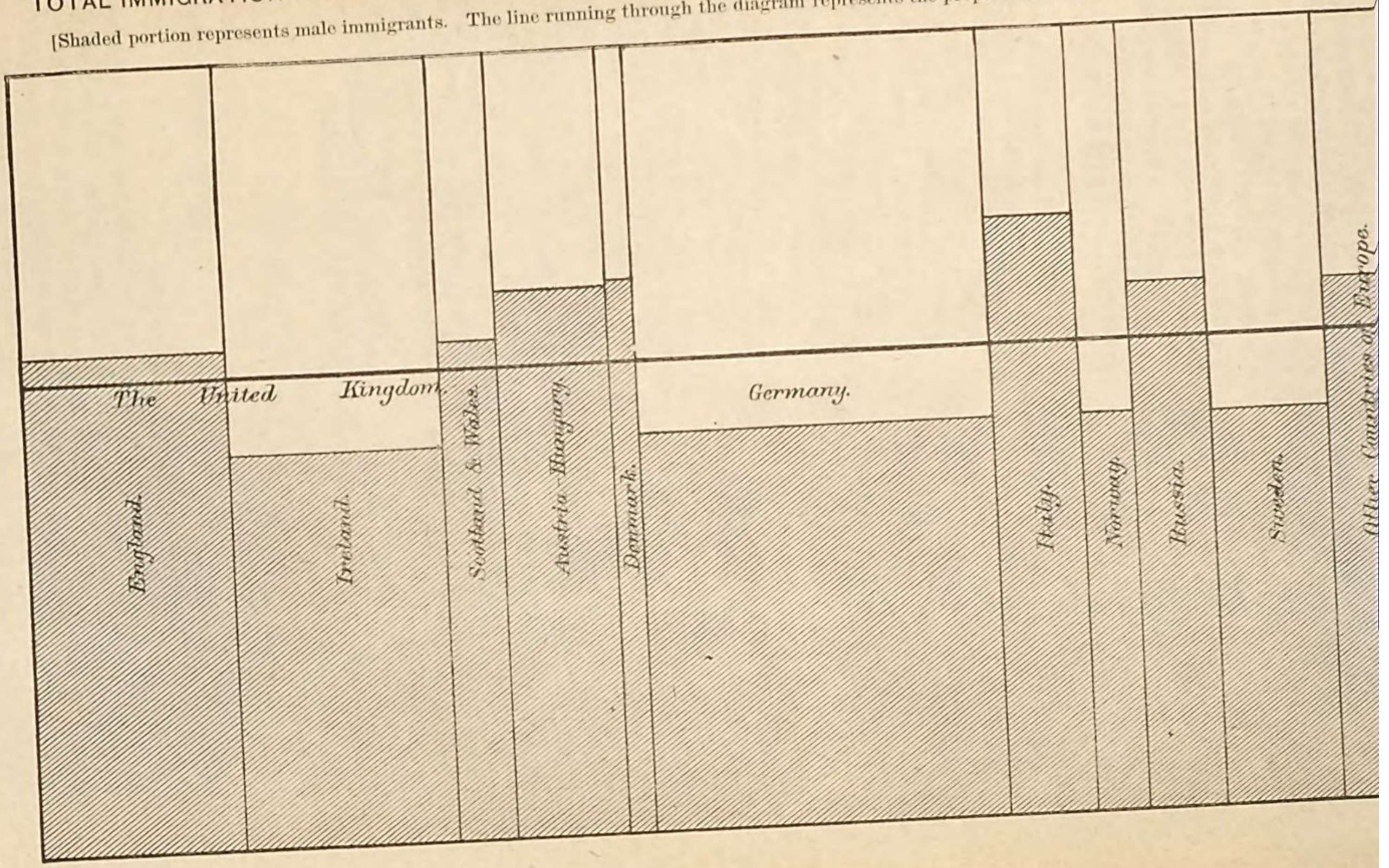
DEPARTMENT OF STATE,
BUREAU OF STATISTICS,
February 9, 1887.

SIR: I have the honor to submit the replies of consular officers of the United States in Europe to questions respecting the extent and character of emigration from their consular districts. The fulness of these replies leave little to be desired, and covering a period of nearly thirteen years—a period of great commercial and industrial depression, of a partial recovery followed by a second series of years of stagnation—the reports give a fair idea of the conditions which control or influence emigration under all economic conditions. Each nation or people, and each district, may have its special incidents which should be taken into account; but the great tide of emigration ebbs and flows in a clearly defined movement consequent upon the economic situation in the original country, as compared with the prospects of success in the country to which emigration tends. It is the difference between economic well-being in Europe and that in the United States, being so much to the advantage of the latter, that has turned the stream of population hither, and not to younger communities where the conditions of success are now less favorable, though becoming more and more advantageous to the emigrant. As supplementary to the reports from European nations, there will be found reports from our consuls in Canada, in Mexico, and in Central and South America, giving the conditions of emigration, and the special features which are attracting emigration. Taken as a series, too great praise cannot be given to the industry and intelligence which the consular service has shown in replying to the questions submitted by the Department.

There is one phase of the question that may be dwelt upon, the more so because it has received little attention in the reports that follow—the migration of skilled labor. The mobility of labor, whether skilled or unskilled, is a comparatively recent economic phenomenon, and has done much to modify the conditions of production, still more of competition, whether local or national. The extended employment of machinery, which demands a lower or less intelligent grade of labor than was needed when the processes required skill and judgment of the worker, has still more tended to equalize, and at the same time to intensify the conditions of competition. By displacing labor, these forces tend to en-

TOTAL IMMIGRATION INTO THE UNITED STATES FROM EUROPE FOR THE FISCAL YEAR ENDING JUNE 30, 1886.

[Shaded portion represents male immigrants. The line running through the diagram represents the proportion of male and female for all Europe.]



The movement of population from European countries, and in this connection it may be stated that Europe alone supplies any real basis for study and comparison, has assumed vast proportions, more than half a million of souls annually leaving their own countries to seek homes in another. In 1884, a year that was not marked by an exceptional migration, the twelve leading nations of Europe gave 567,588 emigrants, the United Kingdom and Germany supplying nearly 70 per cent. of the total. The distribution of this movement was as shown in the diagram.

Nearly two-thirds of this movement were directed towards the United States, and since 1874 nearly 5,000,000 of such immigrants have been received, constituting a total equal to about one-eleventh of the present population of the country. In detail the distribution of emigration from the more important countries of Europe was as given in the accompanying chart:

This vast m ovement of population cannot be of uniform quality, for the advantages of migration and the opportunities are quite as accessible to the highest forms of skilled labor or to men of property, as to the masses of unskilled labor and the idlers who congregate in the great cities. The immigrants received from one nation may be far more desirable than those from another. It was to determine, as far as possible, the character of the immigrants coming to the United States, not the least important of the many questions involved in an unrestricted immigration, that the Department instituted this inquiry. There has of late been shown no little restiveness among workingmen caused by the increasing difficulty of obtaining what they consider to be adequate wages, always tending downwards, it is claimed, by reason of the flood of "cheap labor" coming from Europe. It is no part of my intention to pass upon the justice of this complaint, or to show how the domestic laborer, himself usually of foreign origin, may be protected from foreign competition. A study of the returns of the Bureau of Statistics, Treasury Department, will show from what countries the highest forms of skilled labor are obtained, and to what extent each nation contributes to advance the industrial development of this country by making such contributions.

Total immigration classified by occupation.

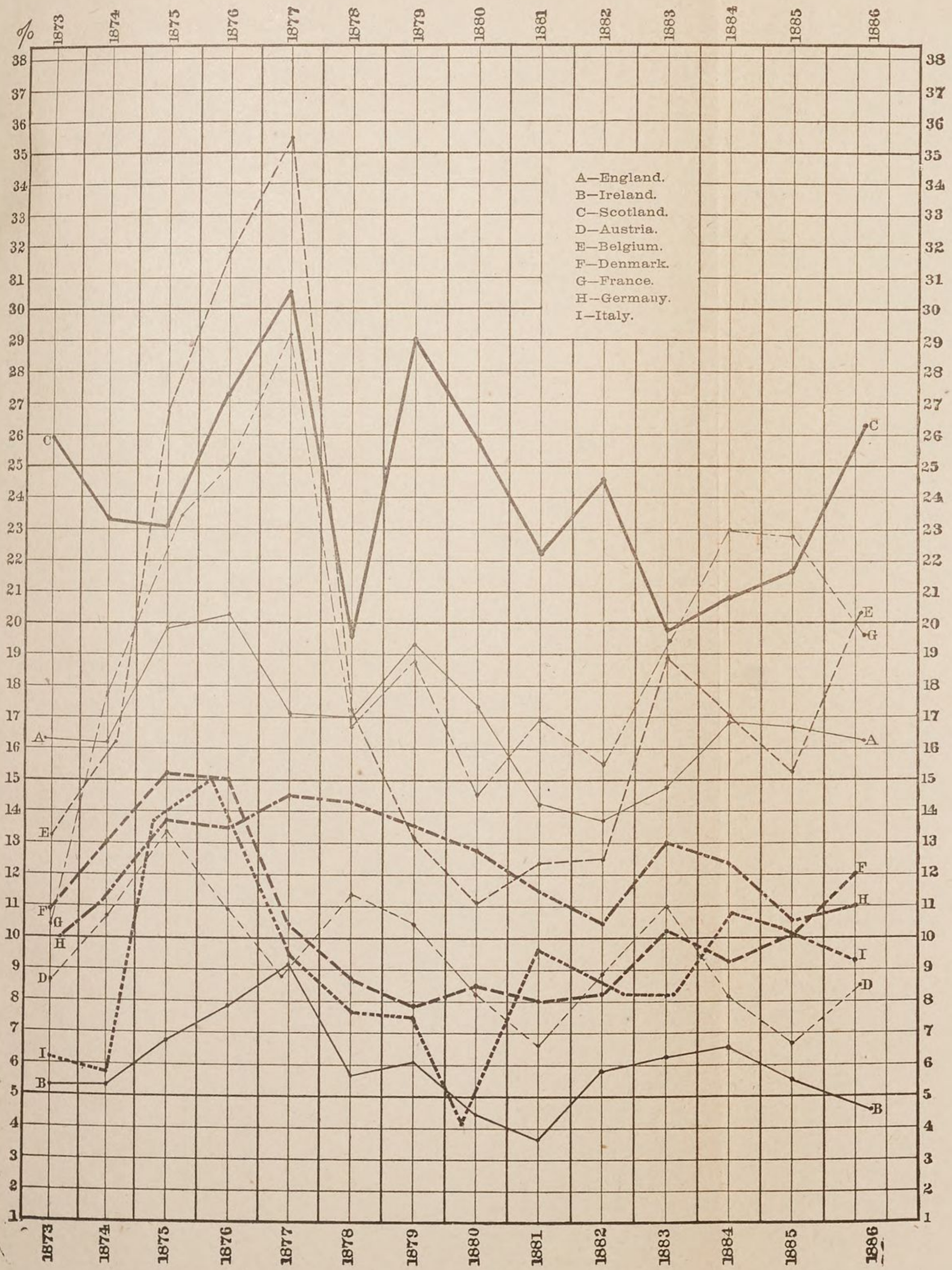
Year.	Professional.	Skilled.	Miscellaneous.	Occupation not stated.	Without occupation.	Total.
1873	2,980	48,792	168,724	4,868	234,439	459,803
1874	2,477	38,700	117,041	4,233	150,889	313,339
1875	2,426	33,803	84,546	1,291	105,432	227,498
1876	2,400	24,200	72,275	910	70,201	169,986
1877	1,885	21,006	55,650	673	62,643	141,857
1878	1,510	16,531	57,806	738	61,884	138,469
1879	1,639	21,362	73,053	897	80,875	177,826
1880	1,773	49,929	188,109	2,194	215,252	457,257
1881	2,812	66,457	244,492	8,140	347,530	669,431
1882	2,992	72,664	310,501	10,619	392,210	786,992
1883	2,450	62,505	216,549	46,660	275,658	603,322
1884	2,284	55,061	184,125	31,665	245,387	518,592
1885	2,097	39,817	141,702	15,398	196,332	305,346
1886	2,078	36,522	137,651	496	157,456	334,203
Total	31,803	587,349	205,229	128,782	2,596,188	5,396,416

The same table expressed in percentages will give the following, no account being taken of the column "occupation not stated":

Year.	Professional.	Skilled.	Miscellaneous.	Without occupation.
	Pr. ct.	*Pr. ct.*	*Pr. ct.*	*Pr. ct.*
1873	0.8	10.6	36.7	50.9
1874	0.7	12.3	37.3	48.1
1875	1.0	14.7	37.1	41.9
1876	1.4	14.3	42.5	41.3
1877	1.3	14.9	39.2	44.1
1878	1.	11.9	41.8	44.7
1879	0.9	12.0	41.6	46.0
1880	0.4	10.9	41.1	47.0
1881	0.4	9.9	36.5	51.9
1882	0.38	9.2	39.3	49.7
1883	0.4	10.3	35.8	45.6
1884	0.44	10.6	35.5	47.3
1885	0.5	10.	35.9	49.7
1886	.....	10.93	41.2	47.11
Total	0.59	10.9	38.	48.1

In detail the returns show the following results:

PERCENTAGE OF IMMIGRATING SKILLED LABOR FROM CERTAIN COUNTRIES IN EUROPE IN THE YEARS 1873—1886.



Occupation.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
	39	93	111	88	148	51	41	22	116	55	189	38	94	73
	111	157	105	140	92	81	144	189	340	217	143	142	126	165
	334	445	366	417	373	319	320	269	387	418	309	231	259	269
n	16	21	9	42	66	13	21	32	81	61	23	21	25	32
	133	54	89	106	97	26	61	28	140	82	60	75	57	49
s	114	97	126	76	66	37	39	46	70	102	83	47	53	92
	559	572	500	421	320	396	341	399	430	543	334	555	377	367
s	182	159	187	177	119	91	125	183	142	264	118	160	176	105
	21	22	28	29	43	19	43	59	96	132	119	133	96	84
	370	482	378	301	185	199	203	211	348	479	454	445	408	353
n. s	1,101	374	527	597	376	278	301	335	662	639	618	437	426	429
l professional	2,980	2,476	2,426	2,400	1,885	1,510	1,639	1,773	2,812	2,992	2,450	2,284	2,097	2,078
s, &c	46	50	154	89	109	97	105	184	256	182	156	162	113	129
	1,398	1,030	730	640	507	464	636	1,377	2,264	2,453	2,331	1,971	1,465	1,209
ir-dressers	228	192	240	156	142	113	141	248	409	478	554	495	371	355
s	1,894	1,461	1,267	816	787	673	911	2,311	3,986	4,099	2,804	2,508	1,819	1,420
	544	743	374	284	241	350	236	617	956	955	885	984	609	382
	1,346	979	582	521	489	645	710	1,138	1,998	2,269	2,102	2,059	1,391	1,190
ers	122	99	145	114	109	173	358	1,574	1,882	731	118	109	92	114
nd joiners	6,406	4,354	3,383	2,631	1,730	1,876	2,759	8,234	11,481	11,900	8,662	7,216	4,392	3,678
	2,324	1,547	1,414	1,385	1,253	1,340	1,724	2,860	3,189	3,412	3,387	3,518	3,413	3,027
	601	356	431	325	265	287	147	453	544	478	540	353	188	158
	230	241	216	218	229	179	287	338	398	667	686	609	421	363
	719	696	558	562	515	355	630	1,329	1,216	1,299	1,079	962	770	798
	538	371	399	421	331	239	260	377	957	917	981	887	599	523
	80	91	59	57	78	41	31	82	244	190	209	142	111	118
	1,482	671	550	384	268	79	153	528	438	419	309	354	291	413
	243	217	291	160	174	117	125	272	317	295	200	189	165	154
	297	237	200	192	202	349	141	198	642	840	1,230	967	554	389
	358	268	475	261	292	284	208	592	641	375	191	232	366	202
	1,862	1,934	2,056	1,224	1,329	871	905	1,458	1,589	1,911	1,844	1,742	1,477	1,803
	4,293	4,478	2,650	1,713	1,303	642	671	2,033	3,203	4,279	2,959	2,562	1,893	1,835
s	2,242	899	471	404	268	343	786	3,309	4,109	4,325	4,156	2,534	2,019	1,886
	573	419	243	197	186	163	206	442	842	1,027	876	839	570	439
	5,716	4,926	4,055	2,237	1,670	1,578	2,588	6,086	5,204	6,485	4,743	3,794	2,940	3,469
	1,055	564	585	440	386	252	450	838	1,342	1,422	1,197	1,306	929	774
	151	204	49	436	110	21	40	90	329	284	163	173	99	203
	285	158	103	98	67	21	42	143	185	238	231	172	163	180
	317	284	397	152	151	86	165	208	371	569	399	357	321	251
arness-makers	354	405	233	136	73	135	126	219	441	529	470	464	285	265
	350	414	464	287	236	365	166	379	685	475	628	567	517	438
	314	1,503	539	103	399	170	108	571	238	155	90	94	86	17
	2,411	1,639	1,265	898	680	777	1,119	1,849	3,967	4,366	3,203	2,931	2,150	1,681
	270	170	192	110	72	83	95	210	405	2,431	3,589	2,646	1,000	293
	529	298	644	279	529	158	113	328	433	551	470	481	341	323

pation.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
...	2,393	1,397	1,463	969	668	815	1,062	2,134	3,106	3,748	3,235	3,317	2,228	2,682
ers	144	142	146	108	161	78	100	171	272	313	336	202	151	128
...	327	341	278	215	156	91	105	157	402	346	347	568	323	192
urers	675	544	713	384	425	317	478	515	1,684	1,045	675	1,506	1,360	1,160
...	234	158	154	158	159	113	149	269	344	443	404	364	306	307
...	1,357	892	776	454	354	292	515	1,499	1,689	1,643	1,679	1,359	1,006	989
...	235	109	94	94	109	23	30	144	275	239	291	229	130	107
...	3,849	3,219	4,765	3,889	3,793	1,476	1,581	4,135	3,524	3,881	4,106	3,097	2,393	2,478
l ...	48,792	38,700	33,803	24,200	21,006	16,531	21,362	49,929	66,457	72,764	62,505	55,061	39,817	36,522
...	119	107	59	70	46	34	66	52	122	159	123	136	125	139
...	32	21	23	29	36	24	28	13	33	56	12	18	60	24
...	293	215	284	231	157	241	226	220	450	539	434	271	312	314
...	36,983	28,775	16,447	14,536	13,188	14,843	19,907	47,204	58,028	61,888	39,048	42,050	27,585	20,600
...	300	198	161	187	215	119	104	240	293	368	362	246	236	232
...	104	56	80	158	131	81	143	103	157	144	334	769	416	109
...	104,423	65,895	46,877	38,847	25,482	26,656	36,897	105,012	147,816	209,605	136,071	106,478	83,068	86,833
...	7,038	5,259	4,706	4,519	4,239	4,217	4,861	7,508	8,766	9,375	7,449	6,522	5,870	5,723
...	16,259	12,427	10,579	6,493	5,158	6,157	6,804	18,580	19,342	23,010	27,988	24,249	20,213	20,198
...	231	129	69	31	38	44	34	60	486	312	214	190	81	49
...	2,942	3,959	5,261	7,174	6,960	5,390	3,983	9,117	8,999	5,045	4,014	3,266	3,736	3,400
llaneous	168,724	117,041	84,546	72,275	55,650	57,806	73,053	188,109	244,492	310,501	216,049	184,195	141,702	137,551

IMMIGRATION INTO THE UNITED STATES ACCORDING TO OCCUPATIONS, 1873--1885.

[Shaded portions represent females.]

The table on page 3 shows that in a period of depression the proportion of skilled labor tended to increase, and this would be the natural consequence, as that labor receives the highest wages, is able to save more, and therefore emigrates more readily. On the other hand, those without occupations are the soonest to feel the effects of a depression. Allowance, however, must be made for sex, as the larger part of emigrating females is classed with those having no occupation. As a further guide I give the proportion of each sex in the different classes of occupations:

MALES.

Years.	Occupations.					
	Professional.	Skilled.	Miscellaneous.	Not stated.	Without.	Total.
1873	2,741	47,490	152,581	1,371	71,609	275,792
1874	2,137	37,301	104,511	1,054	44,222	189,225
1875	2,147	32,014	73,732	255	31,802	139,950
1876	2,182	23,015	65,579	341	20,669	111,786
1877	1,674	20,144	50,116	287	19,812	92,033
1878	1,375	15,806	51,409	138	17,531	86,259
1879	1,515	20,728	65,801	294	23,544	111,882
1880	1,704	48,787	178,784	1,206	57,142	287,623
1881	2,563	64,744	225,524	7,262	110,636	410,729
1882	2,865	68,745	288,221	9,689	129,294	498,814
1883	2,265	56,840	188,375	26,174	90,209	363,863
1884	2,184	50,905	160,159	19,778	75,483	308,509
1885	1,930	37,407	121,564	8,950	56,531	226,382
1886	1,943	35,289	117,546	201	45,725	200,704

FEMALES.

1873	239	1,302	16,143	3,497	162,830	184,011
1874	339	1,399	12,530	3,179	106,667	124,114
1875	279	1,789	10,814	1,036	73,630	87,548
1876	218	1,185	6,696	569	49,532	58,200
1877	211	862	5,534	386	42,831	49,824
1878	135	725	6,397	600	44,353	52,210
1879	124	634	7,252	603	57,331	65,944
1880	69	1,142	9,325	988	158,110	169,634
1881	249	1,713	18,968	878	236,894	258,702
1882	127	3,919	22,280	930	262,922	290,178
1883	185	5,665	27,674	20,486	185,449	239,459
1884	100	4,156	24,036	11,887	169,904	210,083
1885	167	2,410	20,138	6,448	139,801	168,964
1886	135	1,233	20,105	295	111,731	133,499

TOTAL BOTH SEXES.

1873	459,803	1880	457,257
1874	313,339	1881	669,431
1875	227,498	1882	788,992
1876	169,986	1883	603,322
1877	141,857	1884	518,592
1878	138,469	1885	395,346
1879	177,826	1886	334,203

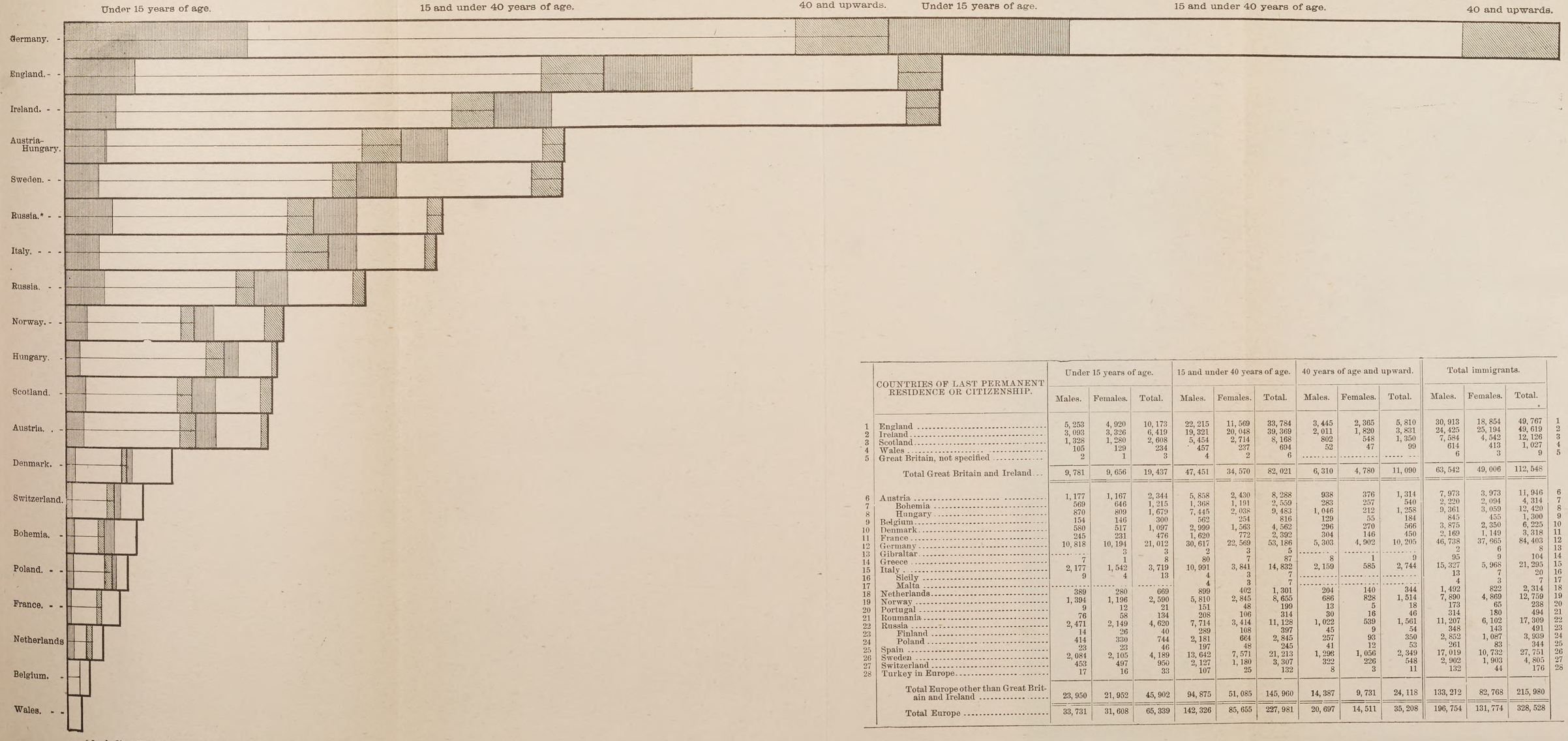
Immigrants from European countries, according to age, year ending June 30, 1886.

Nationality.	Under 15 years.		15 and under 40.		40 and upwards.	
	No.	*Pr. ct.*	*No.*	*Pr. ct.*	*No.*	*Pr. ct.*
United Kingdom	19,437	17.2	82,021	72.8	11,090	10.0
England	10,173	20.4	33,784	67.8	5,810	11.8
Ireland	6,419	12.9	39,369	79.1	3,831	8.0
Scotland	2,608	21.5	8,168	67.3	1,350	11.2
Austria	5,238	18.2	20,330	70.9	3,112	10.9
Belgium	300	23.0	816	62.7	184	14.3
Denmark	1,097	17.6	4,562	73.2	566	9.2
France	476	14.3	2,392	72.0	450	13.7
Germany	21,012	24.9	53,186	63.0	10,205	12.1
Italy	3,719	17.4	14,832	69.6	2,744	13.0
Netherlands	669	28.9	1,301	56.2	344	14.9
Norway	2,590	20.3	8,655	67.8	1,514	11.9
Portugal	21	8.8	199	83.6	18	7.6
Russia	5,404	24.8	14,370	66.1	1,965	9.1
Spain	46	13.3	245	71.2	53	15.5
Sweden	4,189	15.1	21,213	76.4	2,349	8.5
Switzerland	950	19.8	3,307	68.8	548	11.4
Total	65,339	19.8	227,981	69.3	35,208	10.9

The following tables show what proportion of skilled labor each of the principal nations of Europe supplies, and the diagram based upon these tables will give some idea of the fluctuations which have occurred in this proportion :

Years.	Occupations.						Per cent. of skilled labor.
	Professional.	Skilled.	Miscellaneous.	Not stated.	Without.	Total.	
ENGLAND.							
1873	702	12,237	23,348	757	37,757	74,801	16.36
1874	346	8,227	15,543	258	26,531	50,905	16.16
1875	428	7,969	12,074	70	19,589	40,130	19.85
1876	355	4,942	6,900	19	12,157	24,373	20.28
1877	361	3,276	5,690	38	9,796	19,161	17.09
1878	216	3,130	5,058	62	9,939	18,405	17.00
1879	266	4,649	7,254	78	11,936	24,183	19.22
1880	314	10,320	18,868	265	29,687	59,454	17.36
1881	467	9,299	20,268	321	34,822	65,177	14.27
1882	541	11,284	27,346	189	43,034	82,394	13.69
1883	413	9,305	18,105	1,200	34,117	63,140	14.73
1884	381	9,453	17,392	790	27,902	55,918	16.90
1885	387	7,899	15,358	304	23,384	47,332	16.70
1886	522	8,103	17,075	98	23,969	49,767	16.28
IRELAND.							
1873	217	4,032	37,527	185	35,383	77,344	5.21
1874	163	2,821	24,326	124	26,273	53,707	5.25
1875	129	2,593	16,692	32	18,511	37,957	6.83
1876	136	1,662	8,116	19	9,642	19,575	7.98
1877	89	1,326	6,073	4	7,077	14,569	9.10
1878	102	923	7,196	1	7,710	15,932	5.79
1879	127	1,210	9,306	3	9,367	20,013	6.04
1880	135	3,204	38,560	1	29,703	71,603	4.47
1881	130	2,692	36,386	24	33,110	72,342	3.72
1882	134	4,485	38,867	17	32,929	76,432	5.86
1883	139	5,090	41,565	246	34,446	81,486	6.24
1884	113	4,170	31,746	264	27,051	63,344	6.58
1885	176	2,895	27,452	34	21,298	51,795	5.59
1886	111	2,186	27,613	6	19,703	49,619	4.60
				41	7,177	13,841	25.85

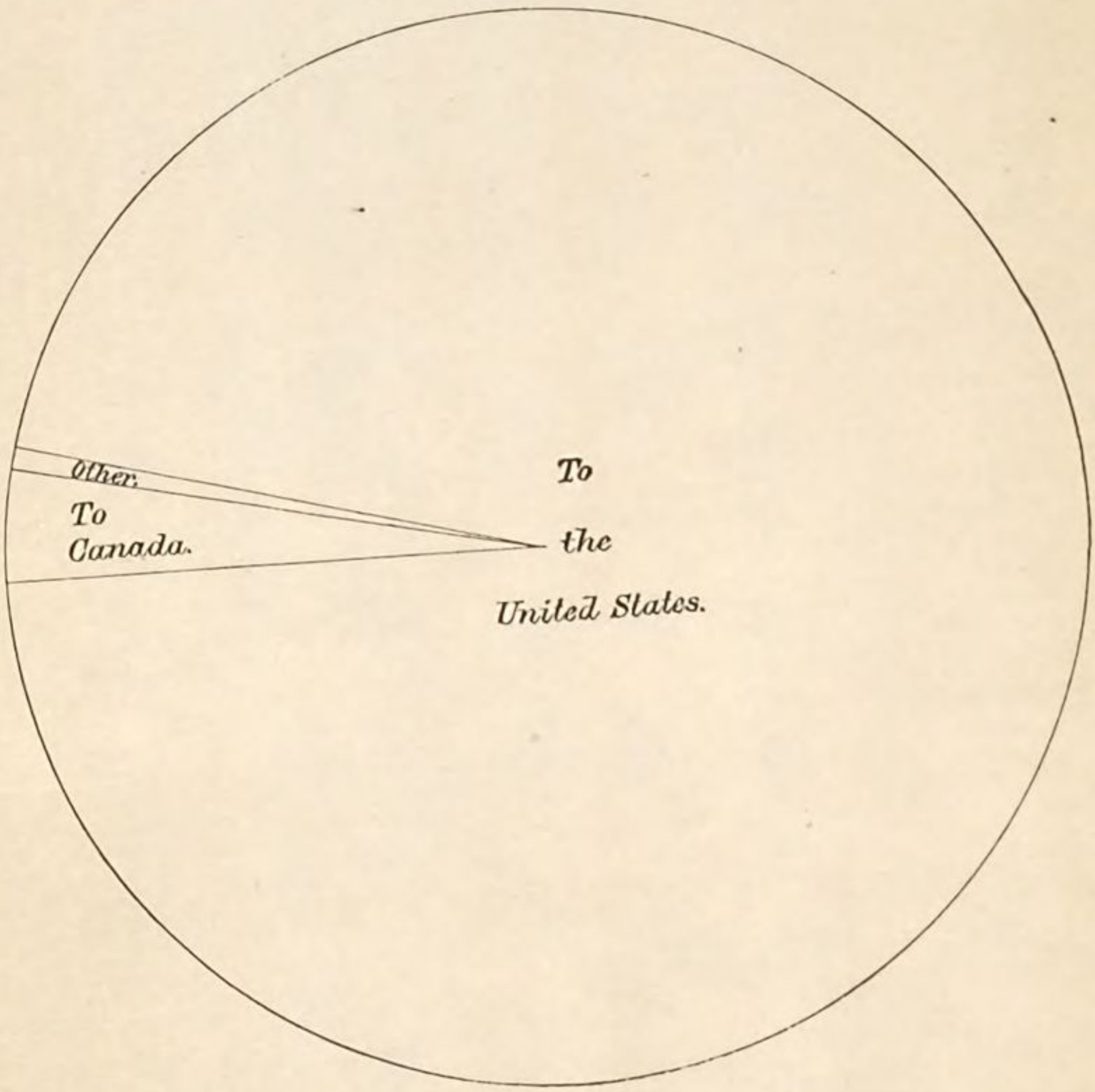
IMMIGRATION INTO THE UNITED STATES DURING THE FISCAL YEAR ENDING JUNE 30, 1886, ACCORDING TO SEX AND AGE OF IMMIGRANTS.



* Including Finland and Poland.

	COUNTRIES OF LAST PERMANENT RESIDENCE OR CITIZENSHIP.	Under 15 years of age.			15 and under 40 years of age.			40 years of age and upward.			Total immigrants.			
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
1	England	5,253	4,920	10,173	22,215	11,569	33,784	3,445	2,365	5,810	30,913	18,854	49,767	1
2	Ireland	3,093	3,326	6,419	19,321	20,048	39,369	2,011	1,820	3,831	24,425	25,194	49,619	2
3	Scotland	1,328	1,280	2,608	5,454	2,714	8,168	802	548	1,350	7,584	4,542	12,126	3
4	Wales	105	129	234	457	237	694	52	47	99	614	413	1,027	4
5	Great Britain, not specified	2	1	3	4	2	6	.....	.....	.....	6	3	9	5
	Total Great Britain and Ireland	9,781	9,656	19,437	47,451	34,570	82,021	6,310	4,780	11,090	63,542	49,006	112,548	
6	Austria	1,177	1,167	2,344	5,858	2,430	8,288	938	376	1,314	7,973	3,973	11,946	6
7	Bohemia	569	646	1,215	1,368	1,191	2,559	283	257	540	2,220	2,094	4,314	7
8	Hungary	870	809	1,679	7,445	2,038	9,483	1,046	212	1,258	9,361	3,059	12,420	8
9	Belgium	154	146	300	562	254	816	129	55	184	845	455	1,300	9
10	Denmark	580	517	1,097	2,999	1,563	4,562	296	270	566	3,875	2,350	6,225	10
11	France	245	231	476	1,620	772	2,392	304	146	450	2,169	1,149	3,318	11
12	Germany	10,818	10,194	21,012	30,617	22,569	53,186	5,303	4,902	10,205	46,738	37,665	84,403	12
13	Gibraltar	.....	3	3	2	3	5	.....	.....	.....	2	6	8	13
14	Greece	7	1	8	80	7	87	8	1	9	95	9	104	14
15	Italy	2,177	1,542	3,719	10,991	3,841	14,832	2,159	585	2,744	15,327	5,968	21,295	15
16	Sicily	9	4	13	4	3	7	.....	.....	.....	13	7	20	16
17	Malta	.....	.....	.....	4	3	7	.....	.....	.....	4	3	7	17
18	Netherlands	389	280	669	899	402	1,301	204	140	344	1,492	822	2,314	18
19	Norway	1,394	1,196	2,590	5,810	2,845	8,655	686	828	1,514	7,890	4,869	12,759	19
20	Portugal	9	12	21	151	48	199	13	5	18	173	65	238	20
21	Roumania	76	58	134	208	106	314	30	16	46	314	180	494	21
22	Russia	2,471	2,149	4,620	7,714	3,414	11,128	1,022	539	1,561	11,207	6,102	17,309	22
23	Finland	14	26	40	289	108	397	45	9	54	348	143	491	23
24	Poland	414	330	744	2,181	664	2,845	257	93	350	2,852	1,087	3,939	24
25	Spain	23	23	46	197	48	245	41	12	53	261	83	344	25
26	Sweden	2,084	2,105	4,189	13,642	7,571	21,213	1,293	1,056	2,349	17,019	10,732	27,751	26
27	Switzerland	453	497	950	2,127	1,180	3,307	322	226	548	2,902	1,903	4,805	27
28	Turkey in Europe	17	16	33	107	25	132	8	3	11	132	44	176	28
	Total Europe other than Great Britain and Ireland	23,950	21,952	45,902	94,875	51,085	145,960	14,387	9,731	24,118	133,212	82,768	215,980	
	Total Europe	33,731	31,608	65,339	142,326	85,655	227,981	20,697	14,511	35,208	196,754	131,774	328,528	

DISTRIBUTION OF EMIGRATION FROM DENMARK IN 1884.



Years.	Occupations.						Per cent. of skilled labor.
	Professional.	Skilled.	Miscellaneous.	Not stated.	Without.	Total.	
SCOTLAND—continued.							
1884	61	1,885	2,632	114	4,368	9,060	20.80
1885	72	1,994	2,794	40	4,386	9,226	21.61
1886	129	3,186	3,470	.....	5,341	12,126	26.29
AUSTRIA.							
1873	23	496	1,383	497	3,366	5,765	8.60
1874	39	848	1,815	822	4,364	7,888	10.75
1875	42	918	1,481	81	4,360	6,882	13.33
1876	51	613	1,336	94	3,552	5,646	10.86
1877	33	438	1,282	41	3,229	5,023	8.71
1878	58	521	1,175	42	2,708	4,504	11.57
1879	27	553	1,449	32	3,270	5,331	10.37
1880	101	1,060	3,079	29	8,635	12,904	8.21
1881	49	1,401	5,154	159	14,346	21,109	6.63
1882	125	1,219	4,298	9	7,968	13,619	8.95
1883	64	1,208	4,052	12	5,587	10,923	10.97
1884	49	1,109	5,752	11	6,613	13,534	8.19
1885	52	772	4,794	.....	5,956	11,574	6.67
1886	51	1,012	5,569	4	5,310	11,946	8.47
BELGIUM.							
1873	10	157	383	4	622	1,176	13.35
1874	26	133	227	1	430	817	16.28
1875	22	164	152	.....	277	615	26.66
1876	20	164	204	.....	127	515	31.84
1877	17	173	174	1	123	488	35.45
1878	11	61	100	1	181	354	17.23
1879	10	68	181	.....	253	512	13.28
1880	9	138	319	.....	766	1,232	11.20
1881	9	219	564	.....	974	1,766	12.40
1882	27	181	344	.....	879	1,431	12.64
1883	17	274	374	3	782	1,450	18.90
1884	30	269	465	61	751	1,576	17.06
1885	26	254	400	43	930	1,653	15.36
1886	29	264	365	15	627	1,300	20.30
DENMARK.							
1873	24	537	2,188	11	2,171	4,931	10.89
1874	24	400	1,108	2	1,548	3,082	12.98
1875	16	401	819	.....	1,420	2,656	15.09
1876	16	232	545	.....	754	1,547	15.00
1877	26	177	626	.....	866	1,695	10.44
1878	6	184	913	1	1,001	2,105	8.74
1879	16	275	1,630	1	1,552	3,474	7.91
1880	10	532	3,125	.....	2,909	6,576	8.39
1881	33	731	3,751	.....	4,602	9,117	8.01
1882	30	967	5,200	.....	5,421	11,618	8.32
1883	27	1,046	4,270	189	4,787	10,319	10.13
1884	30	861	3,292	579	4,440	9,202	9.35
1885	31	613	2,271	140	3,545	6,100	10.04
1886	28	745	2,794	.....	2,658	6,225	11.96
FRANCE.							
1873	279	1,610	6,122	417	6,370	14,798	10.87
1874	381	1,714	3,285	251	4,012	9,643	17.71
1875	346	1,956	2,984	64	2,971	8,321	23.50
1876	468	2,000	2,666	40	2,828	8,002	24.99
1877	283	1,702	1,600	31	2,240	5,856	29.06
1878	156	697	1,511	41	1,754	4,159	16.76
1876	242	876	1,335	34	2,168	4,655	18.81
1880	97	628	1,315	25	2,248	4,313	14.56
1881	268	886	1,913	29	2,131	5,227	16.93
1882	199	943	1,931	36	2,894	6,003	15.70
1883	225	943	1,545	108	2,000	4,821	19.56
1884	107	830	1,200	122	1,349	3,608	23.00
1885	129	794	1,264	164	1,142	3,493	22.73
1886	82	658	1,165	94	1,319	3,318	19.82
GERMANY.							

Years.	Occupations.						Per cent. of skilled labor.
	Professional.	Skilled.	Miscellaneous.	Not stated.	Without.	Total.	
GERMANY—continued.							
1880	455	10,877	26,120	887	46,299	84,638	12.86
1881	880	24,030	63,002	648	121,925	210,485	11.41
1882	885	26,527	67,432	464	155,322	250,630	10.58
1883	857	25,190	51,282	296	117,161	194,786	12.93
1884	876	22,125	51,638	150	104,887	179,676	12.31
1885	751	12,990	35,143	139	75,420	124,443	10,44
1886	554	9,295	24,916	15	49,623	84,403	11.01
HUNGARY.							
1873	7	177	264	----------	899	1,347	13.14
1874	8	118	288	----------	548	962	12.26
1875	22	88	217	----------	449	776	11.34
1876	10	69	221	----------	330	630	10.95
1877	6	52	115	----------	200	373	13.93
1878	5	86	182	13	360	646	13.31
1879	13	84	187	----------	348	632	13.29
1880	43	375	1,967	----------	1,978	4,363	8.50
1881	11	298	3,231	----------	3,286	6,826	4.36
1882	13	237	5,199	----------	3,480	8,929	2.65
1883	16	260	7,277	----------	3,687	11,240	2.31
1884	14	470	9,445	----------	4,869	14,798	3.17
1885	18	226	4,768	----------	4,371	9,383	2.41
1886	13	598	7,917	----------	3,892	12,420	4.81
ITALY.							
1873	117	537	5,313	60	2,688	8,715	6.16
1874	185	435	4,957	176	1,843	7,596	5.72
1875	166	492	1,828	7	1,077	3,570	13.78
1876	170	437	1,415	1	887	2,910	15.01
1877	195	304	1,485	71	1,088	3,143	9.67
1878	145	322	2,055	19	1,590	4,131	7.79
1879	213	437	2,969	41	2,099	5,759	7.54
1880	148	513	5,820	177	5,669	12,327	4.16
1881	292	1,499	8,454	44	5,098	15,387	9.74
1882	324	2,652	20,299	60	8,742	32,077	8.27
1883	201	2,629	23,140	281	5,533	31,784	8.27
1884	223	1,774	8,464	909	5,103	16,473	10.77
1885	156	1,384	6,291	300	5,468	13,599	10.18
1886	205	2,003	9,990	181	8,916	21,295	9.41
NETHERLANDS.							
1873	10	258	1,200	7	2,329	3,811	6.77
1874	19	217	687	1	1,520	2,444	8.88
1875	14	112	360	1	750	1,237	9.05
1876	11	96	224	----------	524	855	11.22
1877	18	47	150	----------	376	591	7.95
1878	16	69	181	----------	342	608	11.18
1879	13	54	186	----------	500	753	7.17
1880	8	139	908	----------	2,285	3,340	4.16
1881	10	332	2,478	----------	5,777	8,597	3.86
1882	14	591	2,263	----------	6,649	9,517	6.21
1883	15	259	1,384	----------	3,591	5,249	4.93
1884	15	282	1,145	1	2,755	4,198	6.71
1885	25	250	784	----------	1,630	2,689	9.29
1886	29	189	739	9	1,348	2,314	8.17
NORWAY.							
1873	132	1,653	5,170	54	9,238	16,247	10.17
1874	21	2,223	3,009	2	5,129	10,384	21.40
1875	52	1,179	1,671	----------	3,191	6,093	19.35
1876	35	735	2,228	2	2,173	5,173	14.20
1877	51	585	1,766	----------	2,186	4,588	12.75
1878	9	659	1,647	----------	2,444	4,759	13.85
1879	2	730	3,267	----------	3,346	7,345	9.94
1880	37	1,567	8,997	----------	9,294	19,895	7.88
1881	32	1,474	9,028	717	11,454	22,705	6.49
1882	26	1,526	12,390	288	14,871	29,101	5.24
1883	48	1,533	7,132	5,835	8,850	23,398	6.55
					7,079	16,974	6.69

Years.	Occupations.						Per cent. of skilled labor.
	Professional.	Skilled.	Miscellaneous.	Not stated.	Without.	Total.	
PORTUGAL—continued.							
1879	4	102	148	.....	138	392	26.02
1880	9	71	58	.....	122	260	27.03
1881	2	15	57	.....	97	171	8.77
1882	.....	1	22	1	18	42	2.38
1883	.....	41	115	.....	20	176	23.33
1884	.....	97	510	.....	94	701	13.83
1885	.....	73	290	24	52	440	16.60
1886	.....	23	139	.....	76	238	9.63
RUSSIA.							
1873	14	148	455	2	941	1,560	9.48
1874	19	751	866	13	2,311	3,960	18.20
1875	16	505	1,761	2	5,698	7,982	6.32
1876	15	316	1,453	6	2,974	4,764	6.63
1877	35	508	1,762	5	4,269	6,579	7.72
1878	14	236	794	67	1,926	3,037	7.77
1879	22	281	1,142	.....	2,989	4,434	6.33
1880	6	645	1,787	.....	2,416	4,854	13.29
1881	18	411	1,796	1	2,639	4,865	8.44
1882	63	1,220	6,821	28	8,189	16,321	7.47
1883	28	457	3,021	1,146	4,534	9,186	4.97
1884	30	1,098	5,244	.....	5,482	11,854	9.51
1885	55	1,206	5,698	.....	9,644	16,603	7.26
1886	53	1,693	6,727	7	8,829	17,309	9.78
SPAIN.							
1873	19	31	282	78	131	541	5.73
1874	10	95	183	48	149	485	19.59
1875	15	68	267	2	249	601	11.31
1876	20	78	232	7	181	518	15.05
1877	22	70	299	25	249	665	10.52
1878	12	39	255	11	140	457	8.53
1879	14	48	231	36	128	457	10.50
1880	34	26	209	2	118	389	6.70
1881	11	65	194	27	187	484	13.41
1882	18	31	158	20	151	378	8.57
1883	7	40	130	6	79	262	15.27
1884	8	49	127	31	85	300	16.33
1885	6	42	163	1	138	350	12.00
1886	12	51	138	19	124	344	14.82
SWEDEN.							
1873	46	1,699	5,599	10	6,949	14,303	11.88
1874	10	406	2,370	14	2,912	5,712	7.10
1875	10	743	2,121	1	2,698	5,573	13.33
1876	13	719	2,331	.....	2,540	5,603	12.84
1877	15	396	1,931	1	2,648	4,991	7.93
1878	12	521	2,359	1	2,497	5,390	9.66
1879	27	1,051	5,422	.....	4,501	11,001	9.55
1880	17	2,801	20,019	.....	16,349	39,186	7.14
1881	35	2,697	23,188	761	23,079	49,760	5.42
1882	34	3,162	32,067	522	28,822	64,607	4.91
1883	39	2,611	17,055	2,471	16,101	38,277	6.82
1884	23	1,763	11,899	1,696	11,171	26,552	6.64
1885	32	1,341	9,635	1,290	9,950	22,248	6.02
1886	36	1,778	15,714	.....	10,223	27,751	6.40
SWITZERLAND.							
1873	32	332	1,064	63	1,616	3,107	10.68
1874	32	317	1,158	9	1,577	3,093	10.24
1875	16	214	719	1	864	1,874	11.80
1876	15	316	553	.....	668	1,549	20.40
1877	28	315	674	2	667	1,686	18.70
1878	30	355	702	2	719	1,808	19.63
1879	51	591	1,197	3	1,319	3,161	18.70
1880	43	1,122	1,987	.....	3,004	6,156	18.06
1881	141	2,588	3,270	32	5,262	11,293	22.91
1882	124	2,241	3,297	11	5,171	10,844	11.44
1883	94	2,244	3,831	81	6,501	12,751	17.59
1884	80	1,563	2,761	33	4,949	9,896	16.68
1885	64	1,046	2,019				

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				1										
										1				

on and nationality.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
						1				1	1	1	1	1
	1	1										1		2
	1		1				2			1				
					25			3						13
					46		2		16	2	2	8	1	3
	5	1	3								1			
				6			1		1			4		6
								1		1		1	2	15
	1								1					
	2							2		1	4	9	5	3
	1					6	2		1				1	
				2	2					1	1			1
	5	4	5		3									
	1	1		4	25					1		4		
	3	1									3			
		1		4	18									
			10										5	11
				4	22		2			22	23	21	8	1
						10	45	83		1	1	5	6	
					40	1	4	3		1		3	2	
	147	172	85	21		2	2			1		1	1	
	46	14	7	3		1	3	11		3	1	11	5	
	3	12	3	1	4									
	3	27	9	9	4		1							
	4						1							
							1							
	2		1	1										
	5	2	3			1					1			
	54	104												
	11													
	1					28							3	3
	1												3	
									7	5	10	13	2	2
	138	1										1		1
			8	3	3						1		1	
	5	4	4						1	1	1	1	1	
				10						1				
	1	2	2	1			1							1
									2		1	2	3	2
			17					1						
							1	1						
		1		7	11	20								

ny	9	12	7	2	7	5	9	8	41	34	20	21	25	18
	15	8	.....	1	1	.....	.....	.....	.....	4	4	1	3	4
-lands	.....	1	.....	.....	.....	.....	.....	.....	1	2	.....	1	1	.....
y	1	.....	.....	12	.....	3	.....	.....	1	.....	.....	.....	.....	.....
	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	1	1	1	.....	.....	.....	.....	2
	.....	.....	.....	.....	.....	.....	.....	.....	3	3	4	2	8	3
land	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	1	5
	.....	1	1	.....	1	.....	.....	.....	.....					
	132	62	24	11	9	6	7	104	28	28	36	25	40	28
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	.....	.....	.....	.....	.....	.....	.....	3	2	4	7	.....	5	2
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	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
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	2	.....	.....	.....	.....	1	1	.....	.....	10	.....	1	2	1
s	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....
	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....
	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1	1
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
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d	.....	.....	.....	.....	.....	.....	2	2	1	4	4	3	1	1
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	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	
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	25	21	23	7	19	12	13	47	29	43	55	59	39	
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y	.....	.....	.....	.....	.....	1	.....	1	1	1	4	2	.....	.....
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	1	.....	.....	1	.....	1	.....	1	.....	2	1	.....	.....	1
	.....	.....	.....	.....	1	.....	.....	8	.....	.....	9	4	.....	1
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	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
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	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....
	1	.....	.....	.....	2	3	1	3	7	5	7	3	1	3
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	2	.....	2	1	1	.....	.....	2	1	1	2	.....	.....	1

tion and nationality.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
inued.	4	9	1	5	2	.....	2	1	7	2	1	2	1	4
	.....	.....	1	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....
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	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
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	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	1	.....	.....
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	1	.....	.....	1	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
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	2	.....	.....	.....	.....	.....	3	.....	2	.....	.....	.....	.....	.....
	.....	46	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....
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	7	4	3	1	4	.....	.....	.....	1	.....	.....	.....	.....	.....
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	.....	.....	23	.....	.....	.....	.....	.....	.....	3	1	2	1	.....
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	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
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	.....	.....	1	.....	.....	.....	.....	.....	1	.....	2	.....	.....	1
	.....	.....	.....	.....	16	.....	1	1	.....	.....	1	1	.....	.....
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	5	10	125	7	1	3	7	16	4	12	1	.....	.....	.....
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	.....	55	.....	2	.....	.....	8	.....	.....	.....	.....	.....	6	6
	.....	.....	.....	40	13	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	1	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	1	1
	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
	.....	.....	.....	.....	3	.....	7	.....	.....	.....	.....	1	.....	.....
	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

	20	4	9	18	5	5	4		10	7	6	4	5	3
	2	1			1	1	2	1	1	2		2	1	2
	1	1	1	1	1						1	1	1	
ary					1				1	1				
				1										
	1		2	2	1	1	1					1		
		1												
	7						1			2	1	1	2	1
	21	6	5	7	34	14	3	5	21	4	4	2	5	1
	1				1				1	2	1	2		1
	1	15	1	3		6						1	1	
				1										
	1	2					1				3			1
	1			1			1		1				1	1
				1							1			1
	34	28	24	11	10	14	19	29	55	41	23	35	15	29
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	8		5	4	30	3	6	6	4	9	4	1	3	1
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	1	2	4	2	1	2	4	4	5	2	4	15	7	10
	4					3		3	4	1	2	1	3	
											2	2		
			1				1		1	8	2			
			3						1	4	2	1	2	1
	9	5	67	48	11	3	6		7	5	5	4	5	6
	54	25	25	10	10	11	13	30	64	64	98	47	39	36
	4		1	2	1	2	1	10	19	12	62	8	28	31
	1									1				
	1		1	3		3	20	18	1	3	2	1		1
												3	2	
	1			1		3		1	2	7	10	16	9	13
	4					1	1	3	1	2	3	4		4
		1			2	1	1	6	2	2	3	5	2	2
	2				3	2	2	2	9	3	6	2	5	2
	1													
	11	8	2	2	4	3	5	15	6	4	12	7	10	17
			2	3		1		2		1	1	1	2	2
	4	3	2	1	1	1		2	5	5	1	3	2	4
									2	1				
			1								2			
									2					
									2			1		
		1		3	1		1	2	1	2	1		1	2
	2	1				1		4	12	10	22	5	7	4
											3		1	
						1				1				3
					37									
			2	1	1		1			1	2			
						2	2	2	12	1	2	2	2	1

...on and nationality.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
.....					37	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	133	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	91	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	73	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	360	236	.....	.....	12	60	.....	.....	.....	.....	.....	.....	.....	.....
.....	90	.....	135	104	.....	.....	.....	.....	.....	86	79	60	28	65
.....	156	.....	1	12	.....	.....	38	132	142	21	13	13	15	9
.....	99	65	129	122	26	14	6	29	29	70	23	25	31	40
.....	28	15	14	12	6	4	17	89	54	1	.....	1	.....	.....
.....	167	20	21	12	29	4	.....	.....	.....	.....	.....	.....	.....	2
.....	1	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3
.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	3	4
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.....	.....	.....	.....	2	.....	1	1	.....	3	.....	3	5	12	33
.....	46	25	.....	1	2	.....	2	1	26	9	11	20	33	.....
.....	1	1	4	28	5	3	3	9	3	4	6	22	.....	.....
.....	5	66	3	3	.....	.....	3	8	.....	.....	.....	1	.....	.....
.....	.....	.....	4	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....
.....	.....	.....	.....	1	.....	.....	.....	1	2	2	.....	1	.....	.....
.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
.....	.....	.....	.....	.....	18	1	.....	.....	.....	.....	.....	2	.....	.....
.....	228	218	28	.....	20	.....	.....	.....	.....	3	.....	.....	.....	.....
.....	.....	58	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	4
.....	.....	1	.....	1	.....	.....	.....	.....	.....	3	3	1	1	3
.....	.....	.....	1	2	.....	.....	.....	.....	11	8	.....	.....	.....	.....
.....	.....	.....	23	49	2	.....	.....	.....	3	5	5	.....	.....	.....
.....	10	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	6	7
.....	.....	.....	.....	.....	.....	.....	.....	4	45	12	21	21	1	6
.....	.....	.....	.....	13	5	2	4	3	10	3	4	7	3	3
.....	28	16	7	11	5	4	3	1	7	6	5	2	3	.....
.....	8	10	3	.....	7	.....	1	.....	2	.....	.....	.....	1	2
.....	12	2	1	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....
.....	2	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
.....	.....	.....	.....	.....	1	.....	.....	.....	2	4	6	3	3	.....
.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....
.....	4	2	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	2	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
.....	.....	.....	.....	.....	.....	.....	1	8	4	3	6	1	2	.....
.....	6	4	.....	1	1	.....	.....	2	.....	.....	.....	.....	.....	5
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.....	6	2	.....	.....	1	.....	1	.....	.....	3	.....	.....	.....	1
.....	.....	1	.....	.....	.....	.....	.....	1	2	4	4	7	5	.....
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

	28	9	33	14	31	6	5	66	26	34	27	38	21	37
	13	4	8	3	3	.....	.....	7	3	6	8	7	9	14
	19	3	3	1	2	5	9	15	7	10	6	13	17	20
	.....	.....	.....	.....	.....	.....	.....	4	3	1	2	3	3	.....
	.....	.....	1	.....	.....	.....	.....	.....	.....	1	3	1	.....	2
	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
	1	.....	1	2	2	.....	.....	.....	.....	.....	.....	1	.....	.....
	3	6	2	6	1	1	.....	11	5	22	11	11	5	4
	.....	.....	.....	.....	.....	.....	.....	.....	3	3	4	1	.....	.....
ls	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....
	.....	46	.....	.....	28	.....	1	.....	1	.....	.....	.....	.....	.....
	.....	65	.....	.....	24	.....	.....	.....	.....	.....	.....	1	1	.....
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	71	30	53	34	13	20	31	42	60	58	35	40	54	49
	6	4	1	3	2	1	4	4	5	4	1	6	7	4
	10	3	7	3	39	5	2	3	4	2	3	2	2	4
	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
	11	5	8	1	1	4	7	.....	8	8	5	5	7	3
	1	4	2	3	3	1	1	4	.....	2	1	7	.....	1
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....
	.....	.....	.....	1	1	1	.....	.....	3	2	4	1	1	.....
	.....	1	.....	.....	.....	1	.....	6	2	2	7	.....	.....	2
	38	94	111	51	38	18	13	3	16	21	5	8	13	6
	53	52	56	42	41	29	48	143	139	110	84	79	39	36
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
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	1	.....	2	.....	.....	.....	1	2	1	4	3	.....	1	1
	3	3	2	.....	2	.....	2	10	4	4	5	2	.....	3
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	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1
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	9	3	3	1	3	2	.....	.....	1	2	.....	3	1	.....
	1	.....	1	1	5	4	.....	12	5	2	2	2	4	1
	4	8	.....	1	1	5	6	13	41	19	6	2	4	6
rs:														
	1		1	2	.....	2	2	.....	4	3	8	4	7	17
	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	1
	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....
	.....	.....	.....	3	2	.....	2	.....	3	3	.....	.....	6	2
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	.....	.....	.....	.....	.....	.....	.....	.....	3	2	.....	.....	.....	.....
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	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....
	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....

ion and nationality.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
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		1		1	1	1		6	9	6	1	6	8	3
	1			1	1				1					
				1										
					1							3		
						1	1				3			
	1	4						1	2					
			1											
			1											
	2		1											
		1			1									
	162	106	153	74	60	119	66	167	97	88	70	100	144	86
	9	19	17	9	10	11	12	22	14	25	10	6	15	9
	68	14	25	10	132	68	13	48	86	09	23	16	15	27
							1						1	
	3	1	6		5	1	2	4	3	2			4	2
		1		2								1		
		1	2	3			1		1		2	1	1	3
	2	4	6	6		8	2	6	4	5	4	17	7	1
	5	6	12	8	15	4	4	1	11	4	6	7	3	4
	43	33	35	34	18	21	22	40	141	59	41	59	54	36
		1							1					
	1	1	2		3					1	1		3	1
				2				1	1	3	1			
	21	29	9	2	1		4	02	12	5	3	1	2	2
			1	1		1			1	2	1	2	5	12
	2	1		2						2				2
													1	
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y	1			1				4	1	8		2	9	1
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ia												6	2	2
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	1							1					1	2
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ands			1		1										
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and			2						1						2
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d Man			1				1								
	1		1										1		
ary	3														
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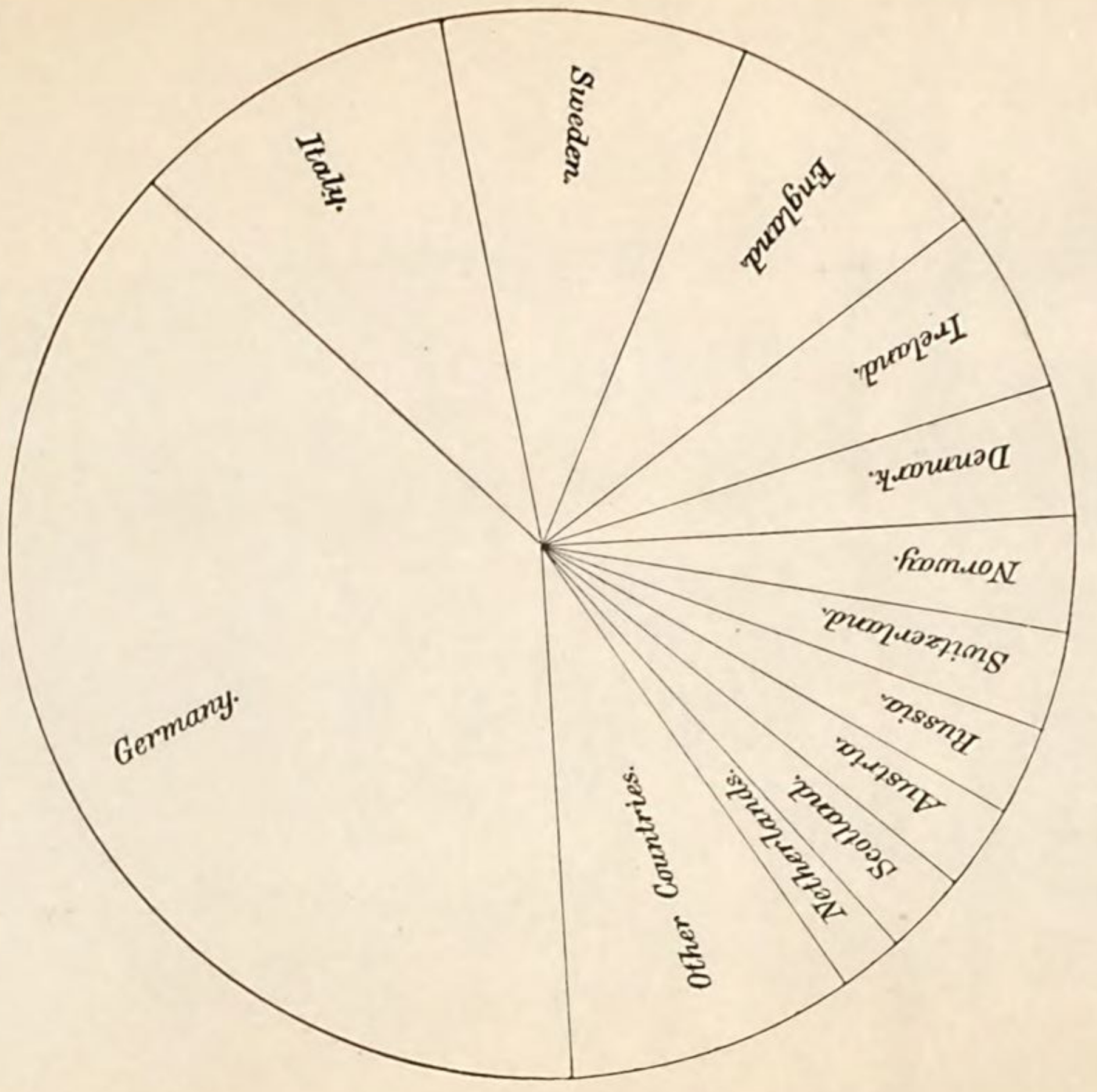
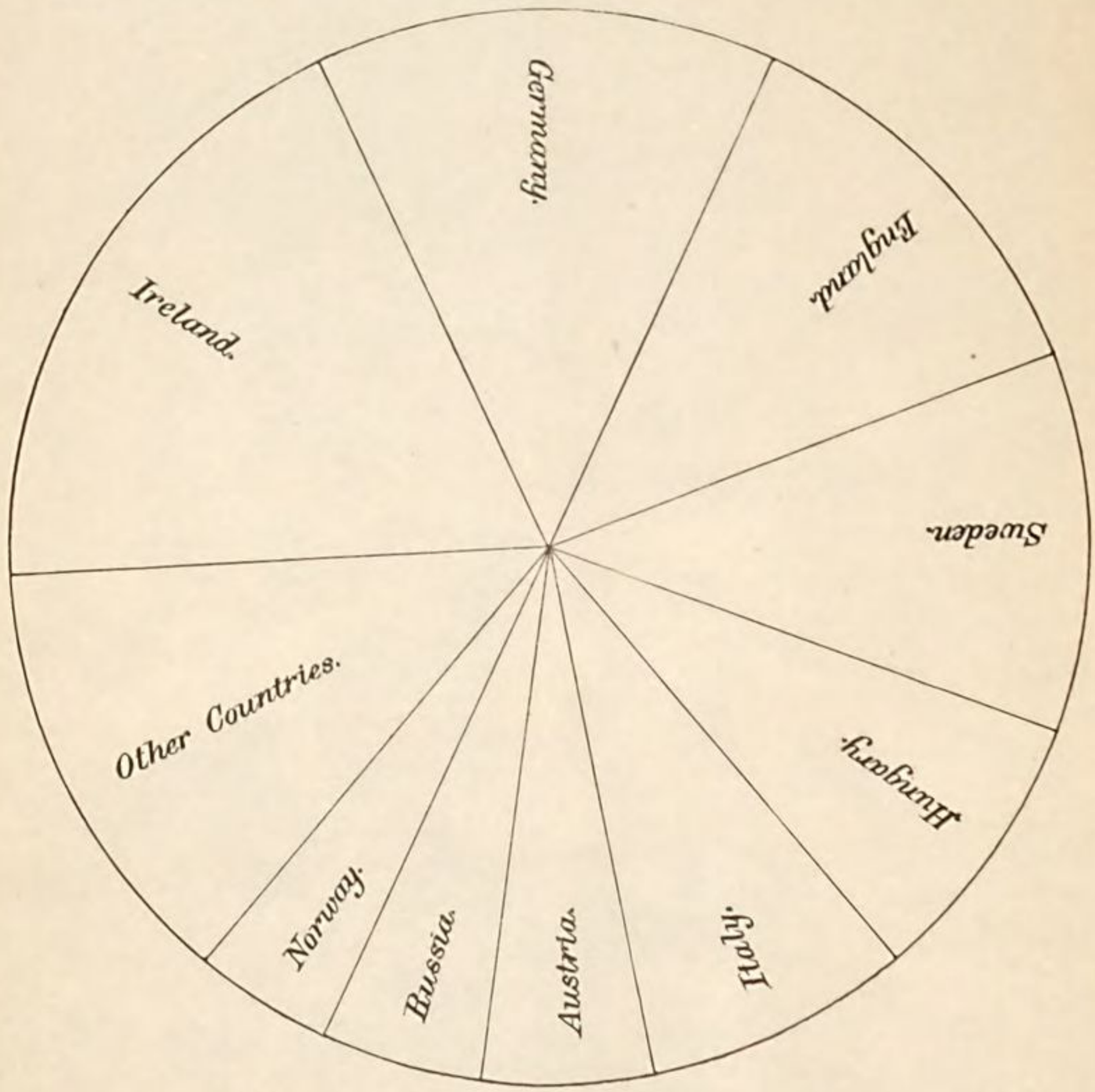
FARMERS, 1886



LABORERS, 1886.



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FARMERS.														
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	2,565	1,409	985	514	524	586	634	2,397	1,651	1,603	1,929	1,527	1,456	1,668
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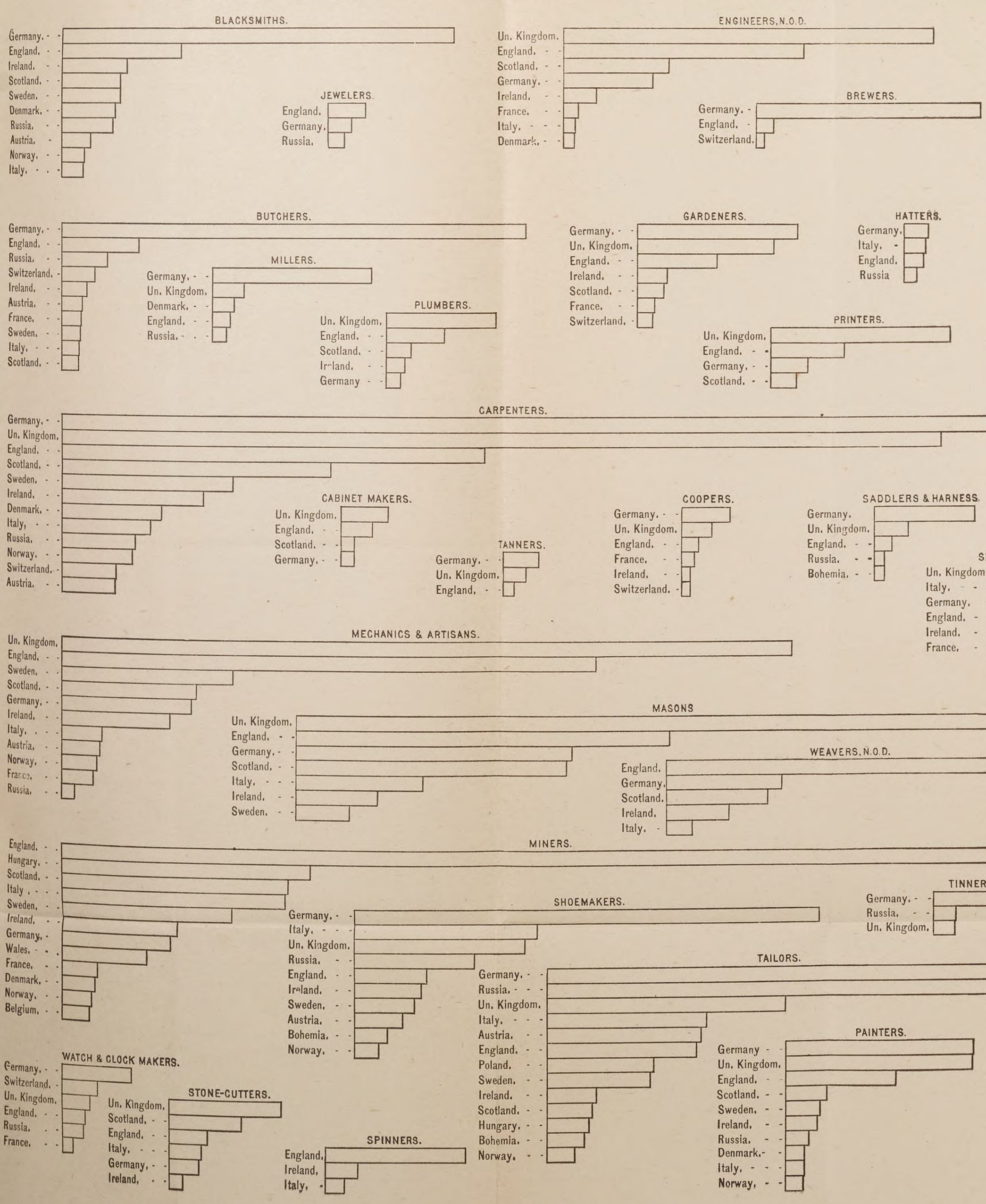
	72	57	29	20	19	30	60	106	251	172	166	191	113	113
	937	303	274	213	238	463	715	1,099	1,041	1,405	1,280	1,451	810	841
	464	327	305	321	374	192	279	274	613	712	458	380	372	287
	17,958	10,042	5,050	3,492	3,106	3,255	4,105	9,432	19,529	23,593	16,961	18,735	11,125	7,679
	2									31		3		
	343	489	234	249	244	452	505	1,552	1,812	3,849	3,124	2,140	1,136	2,019
											1		9	
		5	5	6		52		1		1				
	226	196	142	83	24	51	87	624	1,370	911	570	572	391	403
	3,886	2,229	599	1,108	715	732	757	2,261	1,989	2,416	1,288	1,288	724	819
			1			144	6		7	1	111	129	71	37
									5	2	2	3	3	18
	93	463	983	566	1,046	437	713	341	240	527	160	360	797	572
	6			1	3	1	2	26	15	16	41	30	25	26
	92	70	22	47	14	49	23	89	235	187	68	87	52	99
	9	7	8	18	13	12	4		3	4	28	35	32	11
	865	240	372	542	508	564	1,202	4,751	4,585	1,193	2,051	1,519	1,042	1,932
	430	434	312	253	248	278	593	1,160	2,027	2,204	2,060	1,464	1,004	661
e	6	6	3	3	1	1	7	3	4	1		1	3	2
LABORERS.														
	16,003	9,793	6,926	2,825	2,667	2,463	4,151	12,763	13,930	20,322	12,120	11,336	10,013	11,162
	25,564	16,605	9,900	4,305	3,184	3,987	5,572	25,296	26,070	27,816	26,835	19,704	16,411	16,544
	1,001	778	565	301	189	243	321	1,331	2,017	2,197	1,710	1,111	1,383	1,547
	190	136	48	14	38	21	106	171	124	327	362	117	153	129
							1	2					1	1
	779	986	769	676	636	630	741	1,909	3,318	2,741	2,964	4,581	3,839	4,424
										920	955	1,576	1,220	883
	142	142	84	96	55	61	50	1,376	2,673	4,650	6,874	8,769	4,362	7,371
	276	136	61	37	68	17	69	137	231	113	128	216	218	186
	1,000	534	409	218	276	307	743	1,690	2,261	2,863	1,992	1,303	1,003	1,409
	4,034	1,841	1,117	452	408	444	326	442	581	426	541	337	452	470
	21,442	11,121	4,881	2,816	2,550	3,226	4,554	12,202	36,050	36,104	25,586	25,761	18,486	12,453
	3	7	1		10	2	5	12	2	60	24	7	60	66
	4,685	4,041	1,354	880	884	1,374	2,172	3,911	5,809	15,631	19,236	5,689	4,527	7,268
									4	4	1	25	12	2

	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
ntinued.								1						
	2	20		1	1	1						444	294	229
								215	972	1,229	722	3,434	3,126	4,083
	861	404	140	92	90	65	62	5,278	6,177	8,725	4,879	208	155	68
	929	615	753	534	446	774	2,210	47	42	7		27	109	93
	4	4	2	4		65	131		2	7	15	3,834	3,561	4,342
									1,107	5,079	2,147	279	248	271
						198	237	880	71	310	387	2,007	1,236	1,706
	218	183	638	316	329	6		102	1,715	2,103	916	28	77	33
	47	68	4	2	122		112	791	64	62	25	8,279	6,844	10,686
	1,137	487	200	163	44	154	29	19	16,040	25,566	12,761	769	661	569
	97	54	45	34	1,022	14	3,497	13,622	621	442	1,021	42	22	23
	3,999	1,775	1,322	1,167	200	1,359	337	481	9	12	6			
	463	463	222	95	9	214	5	2						
	7	12	6			2								

IMMIGRATION OF CERTAIN OCCUPATIONS IN 1886, SHOWING THE RELATIVE NUMBER FROM EACH COUNTRY.



The diagrams include merely the immigration during the fiscal year ending June 30, 1886. They show the remarkable predominance of the United Kingdom and Germany in supplying the United States with skilled labor, and also the fact that the Germans represent those industries that depend upon hand labor or the requirements of every-day life, while the English supply the mechanical element. While Germany sends blacksmiths, butchers, carpenters, coopers, saddlers, shoemakers, and tailors, the United Kingdom supplies miners, engineers, iron and steel workers, mechanics and artisans, weavers and spinners. This distinction is clearly marked, and is certainly important.

Since 1879 a new factor has been introduced that may affect the emi gration of skilled labor from the Continent of Europe to the United States, and nowhere is the influence to be stronger than in Germany. I refer to the active interference of the state with a view (1) to render the demand for labor more active by giving it a wider range of employment, by raising its standard of living by means of a more careful regard for its comfort, of a provision for sickness, accident, or old age; or (2) by controlling or directing the stream of emigration that it may inure to the benefit of the mother country and not of other and foreign countries.

In Germany, in 1878, a system of inspection of mines, factories, &c., in the interest of the laborer was introduced, the duty of the inspectors, who are Government officials, being to see that shops, mills, factories, and mines be properly ventilated, that the machinery be placed so as not to needlessly endanger the safety of the employé, to guard against the employment of children in dangerous or overtaxing labor, and to protect generally the worker against oppression. This system of inspection is as yet crude and imperfect, the force of inspectors being out of proportion to the work to be performed. Nor was this all. The principal employers in each community are compelled to maintain a bank or fund in connection with their workingmen for the relief of the employed in case of sickness or disability, the employer contributing one-third of such fund and the employed the remaining two-thirds, each worker contributing in proportion to his or her wages. Finally, on the 1st of October, 1886, the accidents insurance act, providing for the organization of workingmen into societies for relief in case of accident, became of force. "It is a social-political act of great importance to manufacturers and workingmen," says Commercial Agent Smith, "and will doubtless be far-reaching in its effects."

The thrift of the German laborer is proverbial, and the efforts of Government and of individuals have been of late chiefly directed to fostering this feature of his character. Banks, public and private, labor legislation, such as factory inspection, insurance of workingmen, and the like, have been the main instruments of raising the workingman as far as is possible outside of direct gifts or charitable offerings out of a state of dependence upon his daily labor for his daily bread. This has reacted upon his condition, and has given him that slight encouragement to remain at home, the lack of which formerly directed his attention to new fields of labor—as in America. The margin between want and sufficiency has been widened by ever so little, but no one is in a better position to take advantage of th

he could undoubtedly find. The recent report of the German factory inspectors gives a picture of the life of a factory operative that is far from favorable. The inspectors would have no interest in exaggerating the unfavorable aspects of a laborer's situation, and would be more apt to err on the other side. Yet the detailed statements printed in the appendix give ample evidence of the urgent necessity for emigration as well as of the inability of the workingman to migrate without state or private assistance.

Of the German population about 35.5 per cent. is engaged in manufacturing industries, counting also the families of the earning persons. The effects of the rise of manufactures in Germany have been exerted chiefly on only about one-third of the total population. There remain more than 19,000,000, or 42.5 per cent., of the total population engaged in agriculture not immediately subject to these influences. The import duties upon grain have not resulted in higher prices to the farmer, and his situation is little better than it was in 1879, though a succession of fair harvests have in a measure repaired the losses incurred in the succession of bad years that followed 1873. The German farmer still constitutes the larger part of the emigration from Germany, and supplies the largest contingent of that class in the immigrants into this country.

The position of Germany is peculiar, in that it has a rapidly increasing population, that is continually crowding upon the limited areas, as yet unoccupied or uncultivated, and upon the opportunities for profitable employment. There is no outlet, such as the vast plains of Russia offer, to the increasing population of that country for colonizing from within—if I may use the term—a process that has prevailed in the United States. Prussia was long the "colony" of the other parts of Germany, the tide of migration flowing from the rural districts into towns, from towns into cities, and from the cities to the capital, wherever the highest returns were offered to labor. The advantages to be gained by a change of this sort are much reduced, the movement itself tending to equalize conditions. Yet the German population must increase and does increase.

Emigration from Germany has a close connection with the rapid increase of population in that country.

The following table shows the proportion in which the different German states increased in population since the census in 1875 and the percentage of inhabitants per one square kilometer (equal $2\frac{1}{2}$ acres):

Table showing the area, population, and its increase since 1875 *of the German Empire.*

States.	Area (exclusive of parts of seas), square kilometers.	Population.			Percentage of inhabitants per one square kilometer.	Percentage of total population in all places with 2,000 and more inhabitants.	Percentage of total population in all places with less than 2,000 inhabitants.	Average percentage of yearly increase of population, 1875 to 1880.
		Total.	2,000 and more inhabitants (not cities).	Less than 2,000 inhabitants (cities).				
Prussia	348,257.6	27,279,111	11,614,385	51,664,726	78.3	42.6	57.4	1.16
Bavaria	75,863.5	5,284,778	1,462,410	3,822,368	69.7	27.4	72.3	1.02
Kingdom of Saxony	14,992.9	2,972,805	83,984	1,288,821	198.3	56.6	43.4	1.48
Kingdom of Wurtemberg	19,503.7	1,971,118	696,460	1,274,658	101.1	35.0	64.7	0.93
Baden	15,081.1	1,570,254	596,044	974,210	104.1	38.0	62.0	0.82
Hesse (Grand Duchy)	7,680.3	936,340	378,154	558,186	121.9	40.4	59.6	1.14
Mecklenburg-Schwerin	13,303.8	577,055	228,571	348,484	43.4	39.6	60.4	0.82
Saxe-Weimar	3,592.6	309,577	97,028	212,549	86.2	31.3	68.7	1.10
Mecklenburg-Strelitz	2,929.6	100,269	36,949	63,320	34.2	36.8	63.2	0.94
Oldenburg	6,420.2	337,478	68,451	269,027	52.6	20.3	79.7	1.10
Brunswick	3,690.4	349,367	145,703	203,664	94.7	41.7	58.3	1.29
Saxe-Meiningen	2,468.4	207,075	63,005	144,070	83.9	30.4	69.6	1.25
Saxe-Altenburg	1,323.8	155,036	58,512	96,524	117.1	97.7	62.3	1.22
Saxe-Coburg-Gotha	1,968.1	194,716	74,871	119,845	98.9	38.5	61.6	1.28
Anhalt	2,347.4	232,592	134,231	98,361	99.1	57.7	42.3	1.70
Schwarzburg-Sondershausen	862.1	71,107	24,557	46,550	82.5	34.5	65.5	1.05
Schwarzburg-Rudolstadt	940.4	80,296	19,492	60,804	85.4	24.3	75.7	0.92
Waldeck	1,121.0	56,522	7,523	48,999	50.4	13.3	86.7	0.64
Reuss, Elder Line	316.4	50,782	24,767	26,015	160.5	48.8	51.2	1.55
Reuss, Younger Line	825.7	101,330	44,162	57,168	122.7	43.6	56.4	1.84
Schamburg-Lippe	339.7	35,374	8,942	26,432	104.1	25.3	74.7	1.31
Lippe	1,222.0	120,246	23,309	96,937	98.4	19.4	80.6	1.34
Lubeck	297.7	63,571	51,055	12,516	213.5	80.3	19.7	2.21
Bremen	255.6	156,723	139,980	16,743	613.3	89.3	10.2	1.94
Hamburg	409.8	453,869	128,415	25,454	1,107.5	94.4	5.8	3.09
Alsace-Lorraine	14,508.1	1,566,670	609,570	957,100	108.0	38.2	61.1	0.45
German Empire	540,521.8	45,234,061	18,720,530	26,513,531	83.7	41.4	58.6	0.43

The relative importance of this rate of increase may be seen when compared with the condition of France, where the population is increasing at so slow a pace as to awaken the most serious apprehensions on the part of her people. The London Economist said in August, 1886:

The movement of births and deaths in France has never attracted more attention than since the late war, but although politicians and statesmen have pointed out the national danger of stagnation in the population compared with the rapid increase in England and Germany, the warning has so far produced no effects. From that point of view, the returns for 1885 are by no means reassuring. The number of births in that year was 922,361, or the minimum since 1872, with the exception of the year 1880, when the number was 920,177 only. From 1878 to 1884, exclusive of the year 1880, the average had been from 935,000 to 937,000, which was besides a considerable diminution on the previous years. In 1872 the births reached 966,000, notwithstanding the losses in the adult male population from the war; 1873 gave 946,364; 1874, 954,652; 1875, 950,975, and 1876, which was an exceptional year, 996,682. Thus, compared with 1876 the births in 1885 show a falling off of over 74,000. The diminution at the same time coincides with a steady increase in the proportion of illegitimate births, which has risen from 7.15 per cent. in 1879 to 8.03 in 1885. This can only be explained by a reluctance among the male population to assume the burden of a family, and the desire to prevent the dessemination of fortunes by a compulsory division among legitimate children. The effects of the decrease in the births are in some measure palliated by the longer duration of life, which may be also a consequence of the decrease of pauperism from the prudential habits of the nation in the matter of large families. The number of deaths in 1885 was 836,897, and only five times since 1872 has a smaller number been registered, but the excess of births over deat
From 1872 to 1877 the

The pressure of population by increasing the struggle for existence is a powerful influence in encouraging emigration, but it does not, of necessity, follow that the largest emigration comes from the most populous district. The returns for the first nine months of 1885 may be cited as an indication of the relative importance of each district or province as regards emigration.

Transatlantic emigration from the German Empire via German ports and Antwerp from January 1, 1885, *to September* 30, 1885, *inclusive; also, comparison with the same period of previous years.*

From what state.	Transatlantic emigrants.	
	September, 1885.	January 1 to September 30, 1885.
Prussia:		
Province East Prussia	103	1,266
Province West Prussia	413	8,129
Province Brandenburg and Berlin	554	5,310
Province Pomerania	454	9,742
Province Posen	480	8,698
Province Silesia	222	2,333
Province Saxony	176	1,743
Province Silesia-Holstein	375	5,466
Province Hanover	941	7,964
Province Westphalia	288	2,237
Province Hesse-Nassau	421	3,124
Province Rhineland	315	3,216
Hohenzollern	10	80
Prussia, not specially stated	.....	43
Total for Prussia	4,752	59,351
Bavaria:		
Bavaria, right bank of Rhine	806	6,824
Government Province Palatinate	162	1,744
Total for Bavaria	968	8,568
Saxony	319	2,510
Wurtemberg	505	4,508
Baden	333	2,996
Hesse	353	2,175
Mecklenburg-Schwerin	159	2,165
Saxe-Weimar	45	348
Mecklenburg-Strelitz	12	193
Oldenburg	161	1,230
Brunswick	34	236
Saxe-Meiningen	32	264
Saxe-Altenburg	4	71
Saxe-Coburg-Gotha	33	243
Anhalt	20	100
Schwarzburg-Sondershausen	22	74
Schwarzburg-Rudolstadt	15	124
Waldeck	12	181
Reuss (old line)	2	40
Reuss (young line)	8	87
Schaumburg-Lippe	19	65
Lippe	46	299
Lubeck	5	121
Bremen	139	817
Hamburg	224	1,688
Alsace-Lorraine	24	637
Germany, not specially stated	1	89
Total German Empire	8,247	88,180

Nor must the question of wages be omitted. The *Leipziger Zeitung* in November summarizes the report of the factory inspectors on the

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lation of Germany would be doubled; while France, for instance, with an increase of her population at the rate of 0.36 per cent. per year, would not reach double the number of her present population for two hundred years.

The yearly increase of population is given for 1884 to be—

[From report by Consul-General Raine.]

Countries.	Increase.	Period of doubling.
	Per cent.	*Years.*
	1.50	47
	1.40	51
Germany	1.35	52

question of wages, showing that the movement of population coincided in a general way with the rates of wages:

What a motley picture! What differences even in this, the lowest class of wages! How manifold the conditions of life and labor, not only in the relations of the different states to each other, but even within the narrow borders of a minor state. Not only do East and Northwest Germany differ from each other up to 150 per cent. (compare, for instance, Oppeln and Stade), but the average wages of even the little Thuringian capital exceed those of the neighboring mountain village by 100 per cent., and one town often exceeds the next by so much. Froessen and Goerkwitz, for instance, two villages in the principality of Reuss (Younger Line) differ by precisely 160 per cent. in the day wages for female laborers. To construct a "normal rate of wages," which should satisfy "them of Froessen" as well as "them of Goerkwitz," is probably beyond the skill of any social democratic conjurer.

But enough of these gentlemen. It is impossible within the limits of a newspaper article to exhaust all the deductions and teachings which arise out of the table. But one observation may be permitted.

It is easy to pursue the line of increase which average German wages follow from province to province. It begins with the lowest wages in the extreme east (East and West Prussia, Silesia, Posen), touches the district of medium wages in Middle and a part of South Germany, and then reaches the highest rates of wages in the empire by two branches, one which travels to the southwest (Reichsland, Wiesbaden, &c.), and the other to the northwest (the Hanse towns, with their adjoining territory as far as Hanover and Schleswig). It is therefore precisely the same line as the German immigration follows, "the migration to the west."

Even the law which governs local divergencies within the limits of each province, provincial district, and minor state is clearly defined by the figures of the compilation, which we are unfortunately unable to give in detail. Here it is not the "migration to the west," but the "migration to the town," where the higher rates of wages, especially in the large towns, are the attraction.

One would imagine that the continuous flow "towards the west" and "towards the town" would gradually equalize the differences in wages. But there is no trace in our table of any such equalizing influence of the freedom of movement.

The action of the state may also be exerted in directing the stream of emigration into certain channels where the supposed advantages will be greater to the directing state. The colonizing policy of Germany had for its object the founding of colonies, where room may be found for the surplus population, where the inhabitants will still be subject to the mother country and where new markets will be found for German manufactures. On this point Consul-General Raine wrote in 1885:

The necessity for extending the dominion of Germany, in view of such steady excess of births over deaths, forced itself upon the statesmen of the Empire, and even if we place the number of emigrants on the average at 80,000, according to German statistics, or more (about 100,000 according to ours) per annum; such emigration does not balance by far the increase of births, 540,000 per annum; hardly 16 per cent. of the increase are absorbed by emigration. It is but necessary to add that under such circumstances the colonial policy, so unexpectedly inaugurated, met with universal approval throughout Germany. A Berlin paper says:

"We Germans have long been colonizers on a large scale; but, unlike the English, French, Dutch, and Portuguese, we have always colonized lands belonging to other Governments, and not our own."

Considering the annual growth of the nation, the question was then asked:

"Could not the Government acquire for them territories where they would continue to be under German jurisdiction and enjoy the fatherland's protection?"

The foundation of colonies and the encouragement offered to emigrants are too recent measures to be as yet judged. The flow of emigration shows little change, as the following table will prove:

German emigration in ten years, 1875–1884.

Years.	Total.	Emigrated to—							Number of emigrants per 10,000 inhabitants of the German Empire.
		United States.	British North America.	Brazil.	Central America, and Mexico, South America.	Australia.	Africa.	Asia.	
1875	30,773	27,834	38	1,387	450	1,026	1	37	73
1876	28,368	22,767	11	3,432	847	1,226	54	31	66
1877	21,964	18,240	11	1,069	557	1,306	750	31	50
1878	24,217	20,373	89	1,048	545	1,718	394	50	55
1879	33,327	30,808	44	1,630	517	274	23	31	75
1880	106,190	103,115	222	2,119	539	132	27	36	235
1881	210,547	206,189	286	2,102	876	745	214	35	464
1882	193,869	189,373	383	1,286	1,205	1,247	335	40	426
1883	166,119	159,894	591	1,583	1,125	2,104	772	50	362
1884	143,586	139,339	728	1,253	1,335	666	230	35	311

Without attempting to enter into a discussion as to what the real effects of Germany's protective policy has been, there is no doubt that the opportunities for the employment of labor has been greatly increased since 1879. For example, in 1879 170,509 men were employed in mining black coal; in 1883 the number had increased to 207,577, though 503 works were in operation in 1879 as compared with 489 in 1883. So again 721 brown coal mines in 1879 engaged 24,156 miners; in 1883, 665 mines employed 26,824 men; in 1879, 19 copper mines contained 9,118 miners, and in 1883, 36 mines contained 14,326 miners. In 1879, 2,487 mineral works in operation gave employment to 275,711 miners, and in 1883, 2,567 works contained 334,137 miners, the increase in the number of works being about 3 per cent. and in the men employed more than 21 per cent. So again in the furnaces and foundries the number of works increased from 227 to 270, or about 19 per cent., and the hands employed from 32,242 to 42,724, or about 33 per cent. The returns for other great industries, such as the textile and sugar industries, are not at hand, and while the metal industries, and more especially the iron and steel industries,* have been greatly, almost abnormally stimulated,

* FROM CONSUL WAMER'S REPORT.—The subjoined table shows the production, import, export, and consumption of pig-iron, in the German customs territory, from the year 1865 to the year 1885, inclusive:

Years.	Production.	Imports.	Exports.	Consumption.	Years.	Production.	Imports.	Exports.	Consumption.
	Tons.	*Tons.*	*Tons.*	*Tons.*		*Tons.*	*Tons.*	*Tons.*	*Tons.*
									2,078,490
							583,558	306,825	

there can be little doubt that other industries would show a like movement, though on a more moderate scale.

It does not follow, however, that the absolute welfare of the laborer has been improved through an artificial creation of a greater demand for his skill. The continued fall of prices consequent upon an enormously increased production is a general feature of the present period, and Germany offers no exception to the rule. The prices of iron per ton since 1879 have been as follows:

Markets.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Berlin:	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.**
Best Scotch foundry	74.4	83.7	81.7	83.8	82.5	75.1	69.8
English No. 3	55.6	71.1	64.9	67.3	62.9	58.5	53.4
Breslau:							
Puddle	51.7	66.8	55.9	66.1	57.8	54.5	48.3
Foundry	56.8	72.9	62.3	69.5	63.6	60.3	56.5
Dortmund:							
Bessemer pig	64.2	78.7	69.3	70.1	60.6	53.1	45.8
Westfalisch puddle	53.2	68.7	57.4	65.0	57.6	50.4	44.2
Dusseldorf:							
Best German puddle	56.1	83.5	59.0	64.6	57.6	50.0	44.5
Best German foundry	62.6	87.1	73.3	75.0	72.9	65.7	58.4

*Mark equivalent to 23.8 cents.

This movement of prices has resulted in enforced economy, and it may be questioned whether the full effects of the increased demand for labor have not been felt, and not only must there ensue a more moderate extension of industry, but also a reduction of the number of workingmen, either by the shutting down of unprofitable works or by the substitution of machine for hand labor. This means that the increase in the number of laborers is no longer commensurate with the extension of industry; that the period of expansion is ending and a period of contraction will in all probability follow. In support of this position may be cited the *Berliner Tageblatt* of October 22, 1886:

> The report on the condition of industry and the demand for labor, stated in general that, as in the previous year, so also in the year of the report, many opportunities of work were presented at reduced wages. While there are some districts where the statistics are more unfavorable, there are also some which show an improvement, especially for certain branches of industry. Further on it is stated that in all the districts, with slight exceptions, the number of establishments, as well as that of the laborers, has increased, yet the increase of the laborers has been relatively smaller than that of trade. The reason lies in the growing endeavors of industry to displace hand-work by machinery. A result of this development is a constantly increasing crippling of the smaller business in comparison with the larger, especially, *e. g.*, of the hand-looms in the different branches of textile industry. Hand-work has also had to suffer much, because, as for instance, in articles for shoemakers, the wholesale manufactory is taking the place of the more moderate production by hand.
>
> That the unfavorable condition of agriculture reacts directly on industry, particularly machine industry, is especially mentioned in some of the districts.
>
> Indeed, it cannot be denied that the general condition of industry has been correctly sketched in the foregoing sentences, but how do the many opportunities for work, which are said to have been presented, agree with this? If the increase of laborers is not equal to that of business, if in the development of industry the tendency prevails to displace hand-work by machinery, and if the smaller establishments are thereby kept in the back-ground in comparison with the larger ones, it is perfectly clear that the field in which human hands are demanded must become constantly narrower, and in that endless progression there must be a surplus of [illegible]
> The above-mentioned many [illegible]
> representati[illegible]

in the foregoing year. In many establishments the number of laborers has been diminished, smaller jobs or holidays have been introduced, and here and there the wages have been lowered, so that the entire pay of the laboring classes seems to have been lessened." They say of Aix la Chapelle: "The number of laborers is somewhat lessened, but according to the report the diminution of industrial pursuits has been relatively larger than that of the number of laborers. The result of the diminution of industrial pursuits has been that in many establishments the number of working hours per day has been considerably reduced."

In the district of Leipzig the number of laborers has increased in spite of the unfavorable condition of industry. The report says: "In almost all branches of business there is complaint, to an increased extent, of overproduction, damaging competition, the low prices of the manufactures, and the consequent unsatisfactory profits of industrial enterprises. In connection with the reduction of the prices of raw materials, this caused the shortening of the time of work, the lowering of wages, partly also the discharge of laborers, and the suspension of entire establishments."

It would take too much space to give all that the reports on the unfavorable condition of industry contain. We will only further note that in the report from Thuringia there is complaint of the ruin of the textile industry. In other provinces in which the sugar industry is the most important, especially in the districts of Merseburg-Erfurt, Anhalt, and Brunswick, the continued unfavorable condition of that industry is reported, which naturally reacts on the laborers. Machine manufacturing is also thereby unfavorably influenced. As to the condition of mining, the report contains only what is unfavorable.

In the communications facts are brought in from districts to try to show a rise in industrial development. It cannot be denied that in some branches a brisk business has been carried on, but it is only in those which do not form the foundation of the business life of Germany, but the less important branches of industry.

One would not go astray in asserting that the rise which is supposed to show itself in the increase of business and establishments in many districts is only apparent. It is correctly stated in the report on the district of Dresden: "In the year of the report the business establishments of the districts have again partly increased, partly become enlarged, but there is no mistake but that these increases must be regarded as the last endeavors to try to reach the profits of former years. There was an almost universal standstill, particularly at the end of the year, if not retrogression of the larger business establishments to be observed, which manifested itself mostly in diminishing the working hours.

The following observations of the factory inspectors of the district of Zwickau are characteristic of our industrial relations: "Since, with every to any extent favorable condition of business, attempts are made to enlarge existing establishments and to equip them with machines capable of a great amount of work, or to establish new factories by making use of the concessions made by machine manufactories, the production of goods must be increased above the usual demand."

So that while the economic policy of the Empire has probably tended to discourage the emigration of skilled labor by creating employment for it at home, such an artificial structure cannot remain intact. The sugar industry is an example of extreme inflation, and the iron industry is not far behind it. In default of foreign markets the home markets must be glutted, mills and works run on short time or shut down, and labor without employment. The strenuous endeavors of German manufacturers to cultivate a foreign trade, and in this they have had all possible favors from the Government, have been attended with a noteworthy success, and especially in Central and South America. But such new markets are gained at great cost and are not without their limits. It follows, therefore, that the task of finding an outlet for an over-stimulated production must be more and more difficult, and the time will come when the skilled labor of Germany, crowded out at home, must seek employment elsewhere, which means in the United States.

[illegible] offer many

debt may be taken as an evidence), even though the share of each is small, satisfies the wishes of the Frenchman and lead him to endure without complaint what would be unendurable to an English or an American laborer. The succession of bad or deficient harvests which succeeded 1873, touching as it did the material interests of nearly the whole population, and the visitations of such a pest as the phylloxera, were not incentives to emigration, as the following figures show:

Emigration from France, 1870–1883.

Year.	Number of emigrants.	Year.	Number of emigrants.
1870	4,845	1877	3,666
1871	7,109	1878	2,316
1872	9,581	1879	3,634
1873	7,161	1880	4,612
1874	7,080	1881	4,456
1875	4,464	1882	4,858
1876	2,867	1883	4,011

The climax of the period of speculation in the United States, offering as it appeared to many exceptional opportunities for improving the material welfare of the immigrant, but probably the more immediate and active force—the war between Germany and France—give the highest result in 1872. Even this 9,581, represents barely $\frac{1}{4}$ of 1 per cent. of the total population of the country in that year (36,102,921), a proportion so small as to be almost of no account so far as numbers go.

Taking 1883 as the year for examination, it is found that out of a total emigration of 3,940 from the 87 departments into which France is divided, 9 departments supplied 1,854 or about 47 per cent., and these 9 departments were the only divisions which gave 100 or more emigrants. The following are the details:

Alpes (Hautes)	217
Doubs	119
Meurth et Moselle	111
Pyrénées (Basses)	364
Rhin (Haut)	129
Rhône	103
Saône (Haute)	194
Savoie	229
Seine	388

Small as these figures are they represent in some cases a large percentage of the total, and even more than the total, increase of population in the department to which they apply. This is the case of Alpes (Hautes). The births in 1883 numbered 3,473 and the deaths 3,347; the excess being only 126. Yet the emigration was 217 for that year. So also in the Saône department, the births were 5,933 and the deaths 5,852, leaving an excess of only 81, which was more than absorbed by an emigration of 194. In Rhône the deaths exceeded the births by 272, to which must be added an emigration of 103, making a total loss of 375 in one year. The low returns of emigration, therefore, are in reality high when compared with the total population [illegible] of increase.

The report of Consul Mason (Marseilles) shows how little emigration is stimulated by a grievous and exceptional depression, such as was produced by trade and industrial stagnation and a visitation of cholera, for the number of French emigrants leaving Marseilles was less in 1885 than in any year since 1879, with the exception of 1884. The complication of ills raised the exodus from 472 in 1884 to 538 in 1885, an increase of only 14 per cent.

The destination of French colonies is in Algiers or the Argentine Republic in preference to the United States, greater inducements being offered; the Germans, on the other hand, come to the United States.

France and Germany were taken for the basis of these notes because of the active interference of the governments in industrial and commercial affairs.

It is difficult to determine how far these influences have as yet influenced the character of the immigration. In 1873 the number of skilled immigrants in the Treasury returns was 48,792; in 1879, 21,362; and in 1886, 36,522. The percentage supplied by each nation of Europe showed that in the interval marked changes occurred. The proportion of the United Kingdom, France, Germany, and Norway decreased, the change being especially marked in Germany and France, the two nations that have adopted a policy of protection. On the other hand the proportions of Austria-Hungary, Belgium, Denmark, Italy, Russia, Sweden, and Switzerland show a notable increase, while the percentage of the Netherlands remained almost stationary. In detail these proportions are:

Countries.	1873.	1879.	1886.
	Per cent.	*Per cent.*	*Per cent.*
United Kingdom	40.91	35.07	37.58
England	25.08	21.71	22.19
Ireland	8.06	5.66	5.98
Scotland	7.33	7.09	8.72
Austria*	1.37	2.93	5.43
Belgium	.32	.31	.72
Denmark	1.10	1.28	2.04
France	3.30	4.10	1.79
Germany	30.77	21.37	25.45
Italy	1.10	2.04	5.48
Netherlands	.53	.25	.51
Norway	3.38	3.41	2.66
Russia†	.94	1.65	5.60
Sweden	3.48	4.92	4.86
Switzerland	.68	2.77	2.02

*Includes Hungary and Bohemia.

†Includes Poland and Finland.

In spite of the efforts made to direct emigration into certain channels, the United States has attracted and will continue to attract the bulk of migrants. The reappearance of Government as a colonizing agent is noteworthy, as a revival of a portion of the mercantile system that prevailed at the beginning of the last century. The time was when the colonies were an object of protection, not only as regards the adminis-

tage of the mother country. Even Italy, that sends her people to South America in preference to the United States, shows symptoms of also desiring colonies in Africa. In Great Britain the functions of government are still confined to the care and protection of the emigrants, though a recent move—the institution of an office of inquiry, as described in the inclosure to Consul-General Waller's report—may lead to a further attempt to direct the outflow of population to British colonies. The policy of assisting emigration to relieve pauperized or overpopulated districts is openly taught by English statesmen, and has much to commend it, though little more than a temporary expedient. Organized emigration, whether undertaken by individual or public effort, has rarely proved successful.

Not the least satisfactory part of these reports is the absence of instances of a deportation of criminals and incapables. The necessity for a more strict supervision on immigrants is, however, insisted upon by the executive officers who receive immigrants at the principal ports of this country. The insane and criminal may be excluded, but there is a class that has quite as little claim to be received—the chronic pauper. It is true that the pauper, like the blind, the cripple, and the lunatic, is subject to special bonds as liable to become a burden and a future charge to the State, but there is abundant evidence that this restriction is not sufficient, and that our public institutions are largely recruited from the ranks of the immigrants. The State boards of immigration were created to protect alien passengers, and to prevent, as far as is possible, the introduction of paupers and criminals. The execution of this purpose has been very defective through a complication of authority. In the State of New York an act of 1876 provided, in substance, that the captain, consignee, or owner of every vessel arriving at the port of New York from a foreign country, having on board immigrant passengers, should give a bond to the people of the State in the penal sum of $300 for each of such passengers, to indemnify the State against any charge or expense on account of the passenger named in the bond within five years from arrival. This provision was commuted into a payment of so much for each immigrant (ranging from $2.50 to $1.50) to the commissioners of immigration, such payments to constitute a fund for reimbursing communities for charges incurred in supporting or relieving an immigrant within the term of five years mentioned. This system was adopted in 1847, and remained in force until March, 1876, when the law was declared unconstitutional. The decision withdrew the whole subject from State supervision, and placed it under the control of Congress. As no action, however, was taken by Congress, the State, in 1881, undertook to collect a head or inspection tax on every alien passenger, a measure that was also declared unconstitutional. In August, 1882, the existing national law was passed. The experience of Massachusetts has been nearly the same.

The number of immigrants returned by the New York commissioners to the ports whence they came was in 1883 1,350, and for the following reasons: 53 were insane, 6 were blind, 4 deaf and dumb, 16 idiots, 25 cripples, 60 enciente, 649 incapacitated through illness, 75 by reason of old age, and 462 were, through destitution or inability to obtain employment, unable to maintain themselves without becoming a public charge. In 1884 [illegible]

the preceding year 21 were denied admission out of a total of 19,929. In spite of these apparently favorable returns it is unquestionable that a large part of the inmates of the public and charitable institutions of the country are of foreign origin, and who might have been excluded as incapable when first coming to these shores.

Respectfully submitted.

WORTHINGTON C. FORD,
Chief of Bureau.

Hon. T. F. BAYARD,
Secretary of State.

[From reports of the New York Commissioners of Emigration.]

Immigrants admitted to Ward's Island, with their nationalities, 1877–1885.

Nationality.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Germany	1,266	1,457	1,452	1,669	3,126	1,655	1,782	1,432	790
Ireland	804	623	566	703	799	578	670	463	350
Italy	353	235	289	294	365	524	527	111	72
England	221	130	137	151	244	203	247	213	160
Russia	131	10	22	17	764	37	49	142	186
Switzerland	121	93	185	200	217	113	111	77	28
Austria	89	48	48	62	38	57	58	79	101
France	77	58	61	40	70	31	36	27	21
Denmark	49	34	40	51	76	42	46	41	22
Scotland	46	18	55	61	65	32	47	38	28
Sweden	43	35	.....	140	187	112	130	51	52
Bohemia	34	.....	52	30	47	17	18	39	16
Poland	15	34	13	130	162	49	55	98	36
Hungary	14	29	17	94	132	148	161	104	118
Belgium	8	3	10	7	10	5	5	6	5
Holland	7	10	8	15	57	36	38	17	6
Spain	4	.....	.....	.....	1	.....	.....	.....	2
Norway	6	10	33	40	63	41	50	35	24
Finland	.....	.....	.....	4	.....	4	5	6	4
Total from all countries	3,496	2,910	3,148	3,803	6,527	3,818	4,180	3,102	2,109

Insane immigrants admitted to State Emigrant Insane Asylum, 1877–1885.

Nationality.	1877.		1878.		1879.		1880.		1881.		1882.		1883.		1884.		1885.		Total.	Per cent. of total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		
Germany	12	15	12	6	16	10	31	16	40	27	43	39	32	17	23	20	20	20	399	34.79
Ireland	5	19	7	4	11	21	19	25	23	37	25	59	20	27	14	23	9	13	372	32.40
England	3	2	4	4	3	2	6	5	8	2	8	5	9	6	6	...	1	2	82	7.14
France	1	1	3	...	1	...	1	3	4	5	3	3	3	...	1	1	...	...	25	2.17
Sweden	...	...	...	1	1	1	6	...	2	1	1	1	6	2	2	2	3	1	46	4.00
Scotland	2	1	2	...	5	...	2	1	2	1	2	1	1	...	1	...	2	...	13	1.13
Switzerland	1	...	...	...	1	...	2	...	1	...	1	...	2	2	...	2	2	1	28	2.44
Denmark	6	...	...	...	...	...	3	4	1	1	12	...	4	1	1	1	...	...	13	1.13
Italy	1	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	3	1	47	4.00
Holland														9	2	1	1	...	4	.....
																	...	...	2	.....
																	...	...	14	1.22

[From a report by Commercial Agent Smith, published in Consular Reports No. 74, page 371.]

WHAT DOES IT COST A WORKINGMAN WITH A FAMILY TO LIVE?

This is a question which has often been asked the consular corps by the Department and variously answered. The inspector for the Leipsic district last year obtained from sixteen heads of workingmen's families, who were designated by their employers as orderly persons, statements of what it annually costs them to live, and only in four instances out of the sixteen cases was the income slightly greater than the expenditures, which had to be made up by the wife or other members of the family, or some necessity done without in the twelve other cases.

Five of the detailed statements made are published in the factory inspector's report, and I herewith give them (with the mark reduced to dollars at 23.8 cents to the mark):*

1.—*Expenses for one year of a family of eight persons.*

Items.	Amount.	Items.	Amount.
Bread	$54 45	Local tax and state income tax	$1 82
Butter	26 52	Wood	1 90
Potatoes	11 13	Coal	12 37
Coffee and chicory	9 28	Bed-straw	1 90
Meat	26 18	Bed-clothing and towels	5 71
Milk and curds	6 20	School books and writing materials	2 14
Beer, tobacco, and brandy	2 79	Chimney sweeper	17
Oil and soap	7 14	Brushes, combs, grease for leather, and blacking	95
Salt	1 07	Mending and renewal of household articles	2 38
Flour	2 38	Shoes	3 57
Wheat bread	10 71	Clothing	3 57
Rice and other vegetables	3 57		
House rent	15 70	Total	222 81
School tax	4 45		
Dues to invalid fund	3 71		
Insurance against fire	97		

The income was $3.68 a week, making an annual income of $191.82, leaving about $30 to be made up by the family in some way.

2.—*Expenses for a year of a carpenter and his wife.*

Items.	Amount.	Items.	Amount.
Corporation tax	$3 83	Coffee	$8 63
State tax	1 98	Barley	1 23
House rent	35 70	Milk	6 18
Tax on personal property	59	Fuel	18 56
Dues to invalid fund	5 32	Soap	6 18
Pocket money	30 94	Coal-oil	2 47
Clothing and shoes	9 90	Oil for burning	2 47
Bread	24 75	Thread, yarn, and needles	1 23
Butter	37 12	Matches	23
Salt	1 23		
Flesh	24 75	Total	235 76
Vegetables	12 37		

In this case the income was $4.83 a week, or $251.23 a year, without missing a couple of day's work.

*In consequence of not carrying the decimals out far enough in the reductions, the total sums will not be in exact agreement with the columns when added up, but are correct.

3.—*Expenses for* 14 *days of a family consisting of a man and his wife and two children, one one and a half years old and the other four, the man earning* $8.56 *every two weeks.*

Items.	Amount.	Items.	Amount.
Six loaves of bread (every two weeks) at 18 cents a loaf	$1 11⅓	6 cigars	$0 05 7/10
Every Sunday morning 8⅓ cents, worth of rolls, &c	33⅓	125 grams of smoking tobacco	04 7/10
Every Sunday at dinner ½ kilogram of meat, at 16⅔ cents, and meat four times during the week, each time ¼ of a kilogram, at 7⅛ cents	96	Curd for potatoes	08½
One-half kilogram of suet in the soup	16⅔	1, 250 grams of flour	12
One-half kilogram of fat	19	Dues to factory invalid fund	11½
One-half kilogram of sausage	19	Private fund	06
Potatoes	52	Total 14 days	7 51
8 pieces of butter, at 16 cents a piece	1 33⅓	For year	195 23
For the smallest child, 3 cans Swiss milk	50	Annually for funeral money	71
Clear sugar, 1 kilogram	19	Straw for beds	95
Loaf sugar, ¼ kilogram	06½	Rent	11 42
Vegetables, 750 grams rice, 750 grams peeled grain, and 750 grams millet	25⅓	Taxes, including income tax	2 76
One-half kilogram of coffee	42⅓	Fuel	14 28
1 package wheat coffee	00 9/10	Shoes	8 33
6 herrings, at 2⅓ cents each	14⅓	Clothing	21 42
Vinegar and sweet oil	04 7/10	Bed-clothing	3 57
Soap for washing clothes, ½ kilogram	10½	4 glasses of beer on Sundays	09½
Grease for washing clothes, ½ kilogram	08½	Hats, &c	1 19
Soda and starch, 750 grams	10 9/10	House utensils	47
Hair-oil	0 02 3/10	Keeping furniture in good condition	47
Spices	0 02 3/10	Thread, needles, ribbon, and buttons	47
Coal-oil	14⅓	Yarn for making stockings	71
Salt, 1 kilogram	04 7/10	Total annual expenditure	261 87
Blacking and grease for shoes	02 3/10	Income	222 76
		Excess	39 11

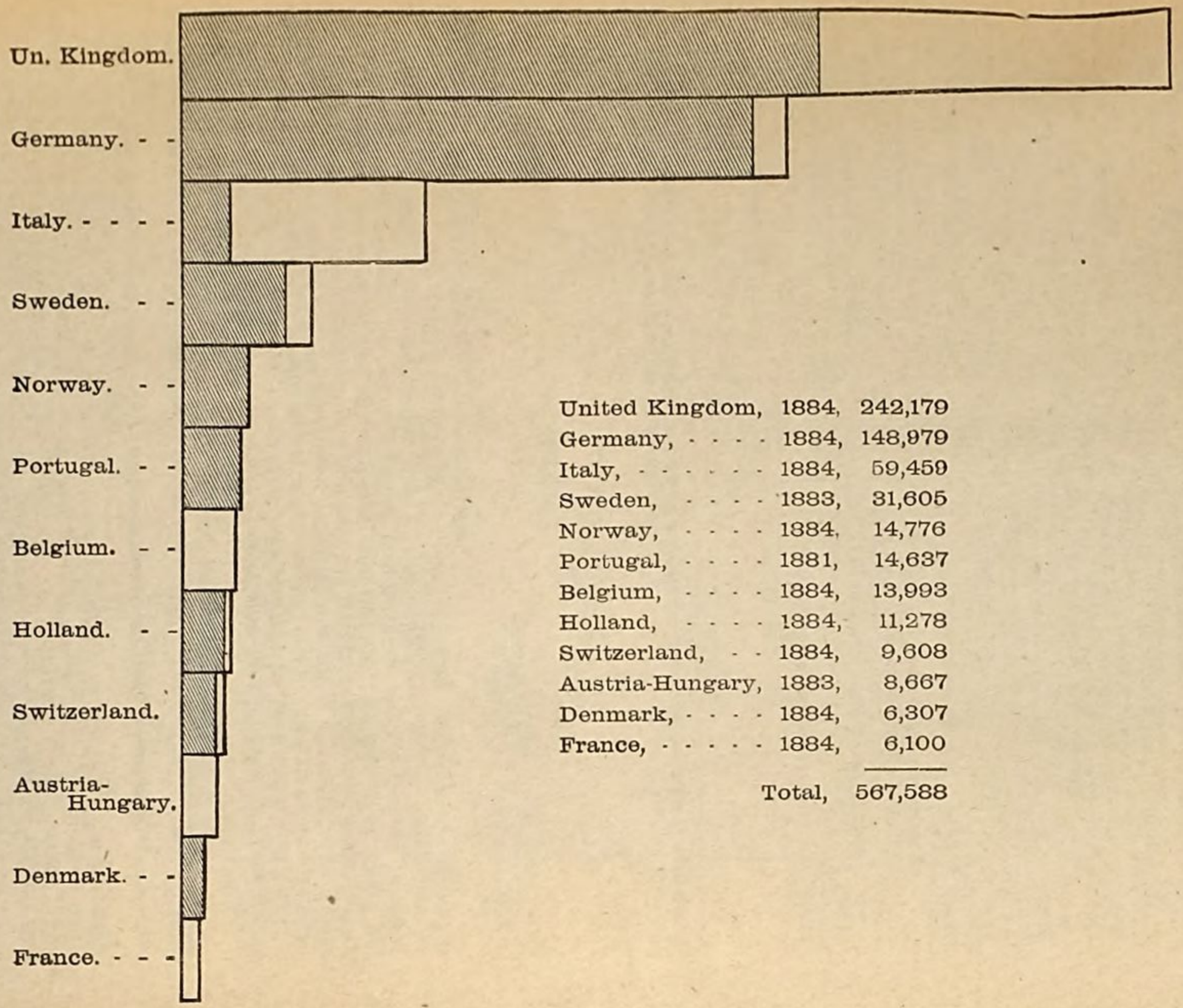
This man was a wool-spinner. His beer account, it will be noticed, is all wrong, and ought really to be $4. 76 for the year.

4.—*Weekly expenses of a locksmith's family, consisting of himself and wife and two girls, one* 11 *and the other* 13 *years old.*

Items.	Amount.	Items.	Amount.
Rent	$0 71	Vegetables	$0 09½
Fuel	28½	Butter (3 pieces)	50
Taxes	13	Cheese (4 pieces)	06⅓
School tax	12	Eggs (3)	04 7/10
Invalid fund	15	Flour	06
Fire insurance	02	Salt	01
Reading matter	02 9/10	Vinegar and oil	02 2/5
School books and writing paper	03½	Coffee	12
Clothing	71	Sugar	02 2/5
Shoes	19	Milk	08½
Bed-clothes and towels	07	Beer	16⅔
Yarn, thread, and ribbon	04 7/10	Total	5 41
Soap and soda	09½	For year	281 30
Coal-oil	08⅓	The average income for six years past was	285 60
Blacking and matches	02 9/10		
Bread	47		
Meat (¾ of a pound daily)	71		
Potatoes (2 pounds a day)	19		
Pulse	12		

EMIGRATION FROM EUROPEAN COUNTRIES TO ALL PARTS OF THE WORLD.

[Shaded portions represent emigration to the United States.]



United Kingdom,	1884,	242,179
Germany,	1884,	148,979
Italy,	1884,	59,459
Sweden,	1883,	31,605
Norway,	1884,	14,776
Portugal,	1881,	14,637
Belgium,	1884,	13,993
Holland,	1884,	11,278
Switzerland,	1884,	9,608
Austria-Hungary,	1883,	8,667
Denmark,	1884,	6,307
France,	1884,	6,100
Total,		567,588

5.—*Expenses of a dyeing master for two weeks, having for a family himself and wife, two sons, one learning to be a joiner and the other still going to school, and a daughter.*

Items.	Amount.	Items.	Amount.
7 loaves of bread, 4 kilograms to the loaf, at 18 cents	$1 26½	Annual funeral dues	$0 98½
Small rolls	28½	Taxes	2 57
Flour	23⅚	Fuel	14 28
8 pieces of butter, at 16½ cents	1 33	Bed-straw	71
7 liters of milk	13⅓	Shoes for all	11 90
5 eggs	07	Clothing and hats	23 80
Cheese and curds	13½	Keeping furniture and utensils in order	71
Fat, suet, and lard	35 7/10	School expenses	10 71
Sausage	14⅙	Postage	14
Potatoes, ¾ of a centner	50		
2 kilograms of meat	61	Total for year	65 81
Dried and green vegetables	47½		
Salt and spices	12	Grand total for year	254 03
Coffee and sugar	57		
Herrings, vinegar, and oil	14⅙	His wages amount to $8.568 for every two weeks, and annually (deducting 12 holidays)	214 14
Coal-oil and rape-oil for light	19		
6 liters of beer	17	Rent from a factory girl living in the house	10 23
Thread, ribbon, buttons, and needles	09½		
Blacking and grease for shoes	02⅓	Entire income for year	234 37
Factory invalid fund	11½		
Private invalid fund	06		
Total for two weeks	7 23½		
Total for year	188 11		

No rent is included in the above statement, because his daughter, grown up, pays for it with money earned by sewing, but he boards her free of charge.

[Circular.]

DEPARTMENT OF STATE,
Washington, April 27, 1886.

To consular officers of the United States in Europe:

GENTLEMEN: You are instructed to report, at your earliest convenience, upon the extent and character of the emigration from the consular district in which you reside to the United States. The importance of this question at the present juncture will doubtless impress upon you the necessity of a full and fair report, covering not merely the statistics of emigration, but the general habits, morals, and social condition of the classes of the population which contribute most to the emigration. The following specific questions are merely to serve as a guide in preparing the reports. You are not, however, expected to confine your replies to them, but to contribute whatever may serve to determine the general condition of those seeking new homes in the United States.

(1) Statistics—a series of years, or since 1873, would be desirable.

(2) Classes which supply the greatest number of emigrants, agricultural, industrial, &c.

(3) Causes of the emigration, such as compulsory military service, onerous taxation, strikes, surplus population, &c.

(4) Social condition; tenants or landowners; well-to-do or paupers; general manner of living as regards housing, eating, and clothing; marriage and divorce facts: children, natural and legitimate. This branch of the inquiry will apply to the whole population of the district, and not to the emigrants merely, though it will be well to examine particularly as to that part of the community.

(5) Do you know of any deportation of chronic paupers or insane persons, with or without Government aid? Or of any "assisted" emigration; and, if yes, how do these "assisted" emigrants compare with those who leave their country voluntarily?

(6) Attitude of Government towards emigration; and, if unfavorable, what obstacles are thrown in its way?

(7) Special [illegible]

AUSTRIA-HUNGARY.

BUDAPESTH.

REPORT OF CONSUL STERNE.

I regret that I have not succeeded in obtaining the exact figures, but from all that I could gather it will be safe to assume that about 70,000 in all will cover the extent of such emigration within the past twelve years; further, that previous to the year 1874 this movement was not of a size worthy of mention, unless I would refer to the emigration which took place in consequence of the revolutionary troubles in Hungary of the years 1848–1850 (the time of Kossuth), the results of which compelled a number of people to leave their country.

These "emigrés" all belonged to the best classes of society, and I believe that those who remained in the United States eventually proved a valuable acquisition to our country; many of them, however, returned to their native home after a total amnesty had been granted.

CLASSIFICATION.

The emigration from Hungary deserves to be classified as follows: Firstly, into what can be called general emigration by individuals from all classes of the people and from the greater part of the state; and secondly, into a systematic movement *en masse* by one class of people only, and only from one district of the state. My attention has been principally confined to the latter class, and I wish it to be understood that the details given in this report refer more in particular to the same.

The great mass of these emigrants belong to the agricultural class, but also include some who have been employed in the timber-industry and in mines; in quality they all represent what is called "raw labor" and of the "rawest sort" at that, since in their occupations they have thus far been very little accustomed to the use and the handling of machinery or improved tools.

CAUSES OF EMIGRATION.

"Hard times" is the main cause of the emigration from here as it is from other countries, with the difference, however, that here these "times" either did not exist as early as in other countries, or, if they did exist, they were not felt by these people, on account of their peculiar stage of culture.

Overpopulation is certainly not one of the causes of this emigration. To the contrary, Hungary, in its manifold resources, has the capacity of holding a much larger population than it has, especially when compared with other continental states of less resources.

That, under such conditions, there should be any emigration at all is [illegible] by the fact that since about 1873 the state has to-

ery, thereby actually creating a surplus of this branch of labor, while the development of other branches of industry has not been rapid enough to give employment to those who have thus been deprived of work. Much of this surplus is drawn to the cities, where there are efforts now being made to develop the industries, but a part of it is compelled to leave the country to obtain the means of living, and thus the movement to America has been brought about.

The last census of Hungary demonstrates this clearly, for while the cities show quite a gain in most cases, there are some of the rural districts which, instead of increasing, have hardly held their own in the past decade.

High taxation has of course much to do with causing emigration, but in this case more indirectly through its influence on the standard of wages and in causing an increase in the cost of living. The improved and increased means of transportation have also had their influence on the latter in advancing the prices of the main staples of life where they are produced, and which is thus most severely felt by the rural population, while the same means have actually made possible and introduced some items of expense and even extravagance which before the event of railways had never been dreamed of by these people in their simplicity of mind, habits, and tastes.

Compulsory military service, though nowhere cheerfully submitted to, is not a cause of this special class of emigration, for those who go away have either absolved their duty already or they intend to do it when they return; this "return" being explained further on.

The idea of a "strike" is thus far as little known to these people as that word itself may be, but dull and slow as they are individually they possess, "as a mass," so much the instincts of sheep that they can only too readily be taught and induced to follow a leader, whom they will follow "blindly," thus increasing the danger should their otherwise non-dangerous inclinations be turned into a wrong direction by evil-minded persons; this all the easier since their education is so very defective.

POLITICAL CAUSES.

Though not directly belonging to the special object of the inquiry, I will here say that since the advent of extreme nationalism (Chauvinism) in the politics of Europe there is a sort of migration in practice, especially in the southeastern portion of the continent, by which Hungary, as one, yearly loses some of its population, though she also makes some gains by the same cause. It is brought about by this that the several nations of this part of Europe, since they have succeeded in establishing a more fixed status as nations, are making efforts to repatriate the descendants of those who have been lost to them during the voluntary and involuntary *Völker-Wanderungen* of the past centuries, and a success in this is made quite possible from the peculiar fact that though these different peoples have been thrown together for ages, many of their descendants have retained the tribal characteristics of their ancestors in general appearance, habits, and character, as well as their likings or prejudices of race, not to forget also of language.

Of all these states I believe there is [illegible]
the [illegible]

fact that these races occupy by large majorities different portions of the state and have thus been or are thus able to retain their own characteristics. Much of the old rivalry is yet existing amongst them all; and, since some of them at least believe themselves oppressed by the dominant race, it is comparatively an easy matter to induce some of them to return to the homes of their ancestors, where in turn they may enjoy the satisfaction of belonging to the great majority, though for solid benefits they are seldom benefited by the change. The interested parties, in this case the neighboring states, see to it of course, even if not officially, that the necessary sentiment is developed and that the necessary means are furnished to smooth the way homeward.

I find after all that the previous remarks were in place, for they go to show that there are people living in Hungary who though in close contact with others for many years and whose interests seemingly and reasonably should be the common ones, have retained their individuality to such a degree as to prevent their becoming citizens of their state in its fullest sense; just such a class are those who furnish the principal contingent of the emigration to America.

They are the Slovacks and belong to the Slavonic race and they inhabit principally the northern counties of the state, which are proverbial for their poorness of soil and general resources, in consequence of which the Slovacks are also the poorest people in the state.

Notwithstanding this and all I have said about race feeling, these people feel much attached to their mountain homes and will only leave them when necessity compels them to do so, but then always with the fixed determination to return to their homes as soon as their aim has been reached. This aim, when going to America, is to make what is a fortune in their eyes, and in this they usually succeed in about three years. When they move about nearer to their homes they usually remain away during the season of harvest or during the building season in cities, and then their object is mainly to provide the means for their long winter; and while they are thus away they conscientiously send home supplies to their families.

CHARACTER OF EMIGRANTS.

It is usually the men only who thus leave their homes, and, though at all times practicing the closest economy, they will when away even strain a point so that their object may be attained the sooner, and at such time they can be said to fairly compete with the Chinese as far as the most penurious practices of economy; and were it not for their love of strong drink they could fairly be called the most frugal people living as far as the demands of the body go, and I may say here that the above inclination has a great deal to do with their impoverished condition.

More directly in answer to your queries I will say that I believe none of these emigrants to be paupers, nor is there any danger under reasonable circumstances that they may become such in America; for, unlike the gipsies of Hungary, the Slovacks are not born beggars; to the contrary, they are almost willing to work, and all the harder if by doing

land unit with them), but they have either lost this entirely or are so much in debt that, at home, nothing short of a miracle can save them from total ruin. To either possess such wealth as this or to recover it where lost is generally the utmost limit of all their ambition.

HABITS OF LIVING.

Their manner of living is the very plainest; their homes are often nothing but scanty huts, of one room, wherein the whole family lives and sleeps promiscuously. The furniture and outfit is very primitive, mostly home-made and has to last for generations. The same can be said as to their clothing, "biled shirts" being quite an unusual luxury with the men. The body clothes of the latter are made of coarse linen, their summer clothing of the same material, only coarser, and in winter their clothing consists of suits made from a coarse and thick woolen felting, in the natural color of the wool; an everlasting cap of sheepskin and a pair of sandals about complete an outfit which has been in mode with them for generations and which may be heir-looms, since the style hardly ever changes.

A very important part of their outfit is the very roomy and long mantle without sleeves, made up from half a dozen sheepskins which are tanned, the wool being left on; these "overalls" are ever with them, and, as the season may demand, are worn either with the wool on the in or out side, and when the men are away from home these mantles form their complete bed. What these patriarchal cloaks may lack in style is generally made up for by some gaudy embroidery or even painting on the leather side of it, just as also the bodices of sheepskin are "trimmed," which the women wear in winter. The many and wonderful "discoveries" in dress of the female world at large has not yet reached these women, and their extravagance usually spends itself in the acquisition of a number of high-colored handkerchiefs and ribbons for head and shoulders, though some of them who have traveled beyond their home limits have gone as far as to adopt the red or yellow top-boots of the Hungarian peasant women.

I do not wish to be unjust to these people, but from all I can learn their demand for water is but very limited for the use of the outer body as well as the inner.

FOOD.

At home their diet consists principally of milk, potatoes, corn and rye bread, coffee and the meats being reserved luxuries of the wealthier for Sunday or holidays.

While laboring in cities there is added to the above, if such can be done cheaply or gratis, the remnants or offal from the restaurant, or if times are specially "flush" with them fresh meat is bought from the butcher in the shape of the lungs, livers, or other unpopular but cheap portions of the beef. Their preferred drink is a sort of brandy made from potatoes or prunes, the latter called "*slivovitz*," and since the presence of the Slovacks in America this brandy has become an article of export from here to the United States.

In all, it will be seen that the tastes of those [illegible] refined [illegible]

With the same stated object, they are, when employed *en masse* in the cities, not very choice as to the quantity, quality, or even set of their bedfellows. Thus as many of them as can, men and women alike, will pack themselves into a room or cellar over night, and without the least regard to cleanliness or comfort.

The sanitary consequences of such habits form a standing threat and danger to the health of this city for instance, and the authorities often are compelled to make raids at night to dislodge these disease-breeding pest holes.

MARRIAGE AND DIVORCE.

Marriage is quite common with these people; but, since divorces either cannot be obtained on account of obstacles of religion or on account of the expenses connected therewith, many of the people of necessity fall into a state of concubinage, or wild marriage (*Wilde Ehen*), and this has become so general also amongst the poor classes of the whole state that it forms a publicly acknowledged evil. This also is one of the main causes of the large proportion of illegitimate children in the state, though the statistics show that just amongst these Slovacks the showing is not as unfavorable as in other portions of the state, or especially in the cities.

(Exact statistics covering this and other points of the inquiry will appear in a body at the end of this dispatch.)

Another cause of the number of illegitimate children here in general is the fact that the young men practically cannot marry until their military duty has been absolved. In justice to these, however, it must be said that in most cases they assume the responsibilities which were the fruits of their peculiar form of courtship as soon as they return from the army by marrying the mothers of their too previous children, and it is quite fortunate for these "otherwise" poor mothers that in their case a common rule is reversed, in that it permits "public opinion to adapt itself to circumstances," thus making it not only possible but even "the" proper thing that such marriages do take place.

Certain is it that an overamount of sensuality does not exist amongst these people and is not the cause of their seeming immorality; at any rate a diet as described is usually not apt to develop the former.

Abject poverty and dependent position have far more to do with the things as they are; thus the females of the poorer classes often lack the necessary powers of resistance, and lack of proper education has done the rest to rob them of the needed sense of discrimination; and though serfdom* has ceased to exist for very many years, I think there are those yet to be found in this country who are not yet fully aware of "all" the boons which emancipation has brought them.

MORTALITY AMONG CHILDREN.

As also properly belonging to a description of the Slovacks, I shall say that the mortality amongst their children is large beyond proportion, and this is also an evil which exists again in the whole state.

[illegible] of this, though births occur in rational numbers, the [illegible] increase.

ASSISTED EMIGRATION.

I have no knowledge of any deportation of chronic paupers or insane persons with or without Government aid.

"Assisted" emigration there has been a few years ago, as already referred to in my dispatch No. 2, of May 19, 1880. While I have not been able to lay my hands on to any positive facts I will say that it is generally known that many of these emigrants have been secured by labor contractors at the beginning of the movement, while now it is kept up by the aid which desiring emigrants receive from friends who are already in America. Besides this, there is every reason to believe that transatlantic transportation companies do their share towards making these people "travel."

ATTITUDE OF THE GOVERNMENT.

The described shortness of population, especially of the laboring classes, causes the authorities of the state and the owners of estates to look with the greatest disfavor upon the movement.

The authorities use every possible method to repress the movement, but the most effective remedy has been lost to them when the compulsory passport system was abolished. Though passports are not issued to people who may be in debt or who have attained a certain age and not yet absolved their military duty, these always find a way to leave the country when they want to go; and the people who are not in debt and who can obtain passports are not those who want to go.

Another repressive measure resorted to is to keep close watch upon the movements of suspected emigration agents, and I am sure that these are shortly dealt with when caught at work.

Much stress also seems to be laid upon giving publicity of any piece of unfavorable information concerning the United States, and all the newspapers of the country seem to be alike willing and patriotic in aiding the Government in this object. but all labor is certainly wasted in this instance as long as the Slovacks in America continue to send their little checks of money to their friends in this country, and though these are usually but very small sums, they represent vast fortunes to these modest people.

I believe there would not be so much objection after all to this emigration were it only money that the people send or bring back to their homes; but something is imported thereby which but few continental governments seem to digest with a good grace, that is, "American ideas"; and in this case I believe that this Government cannot be said to be altogether wrong if they treat this article with suspicion, for crude as these Slovacks leave their country, crude they also return, for their exclusiveness and love for herding result in their imbibing while in America not ideas of real "liberty," but ideas of "license." Thus the emigration is not only an economic loss to the state, but also carries with it items of social and political danger, and no wonder that the Government would by all means like to stop it.

GENERAL CONCLUSIONS.

I am of the opinion that with the present condition of the labor market in the United States there is no room there at present for this class of people. I even believe that under more favorable conditions in the United States these Slovacks are not a desirable acquisition for us to make, since they appear to have so many items in common with the Chinese.

Like these they are extremely frugal, the love of whisky of the former being balanced by the opium habit of the latter.

Their ambition lacks together in quality and quantity. Thus they will work similarly cheap as the Chinese, and will interfere with a civilized laborer's earning a "white" laborer's wages.

Like the Chinese, again, they are very exclusive people, and though American institutions may go a great ways towards removing this defect, it will surely require generations to make them enlightened citizens, where emigrants of other nations only needed a few years.

Of their habits I shall not speak, since the changed situation would undoubtedly act wonders in this respect in a short time.

Another main objection to them is that, like the Chinese, they do not intend to remain in our country, not even as long as the latter, though like some of these, also, an occasional Slovack may "stick." But to show how sincere and strong their intention is to return home when they emigrate, I will state what I have from very good authority, namely, that some of the better-to-do families give their daughters in marriage to men upon the special condition, that after a reasonably lengthy honeymoon the husband must go to America to make his fortune, when he may come back again to his wife, and while thus away they all conscientiously supply their families with the necessary means of living, thus again, like the Chinese, becoming no permanent benefit to the United States, their earnings never staying in the country.

To say a last word about these Slovacks, they are, after all, a people more to be pitied than anything else, but charity should begin at home.

In addition, I shall now say a few words about the emigration by individuals, first referred to, but a very few remarks will describe this, since it is very much of the same sort as has left the Continent for years and which should be well enough known in the United States. While the Slovack emigration sometimes depopulates whole villages, the latter consists simply in the leaving of an individual now and then and from any part of the state, and these are then most generally the Hungarians proper, or, if a particular sect may also be named, sometimes the Jews.*

Neither of them like to leave their country, and they only go in the hope of improving their financial situation.

They are mostly farmers or merchants who have not succeeded at home, now and then a discontented mechanic or tradesman also goes, though I believe that very few of them all would leave, even under pressure, were they to know that also in America people have to work, and work even harder than is done here, if they would accomplish anything.

I believe that many of these would not need to be hurt in their patriot-

the same perseverance and judgment as might be desirable; but it is not my business to lecture these people, and the character of them has been once already described to the Department.

As a class I can say for them that they are intelligent, quick, and capable, and under any reasonable conditions in the United States they will succeed and become valuable citizens of our country.

Following are the statistics relating to the subject, taken from a census at the close of 1884:

Total population of the state, exclusive of Croatia, Slavonia, and Fiume, 14,341, 276. The number of marriages during the year, 144,416; of divorces, 1,047. The total number of marriages in the three countries from which the Slovacks principally emigrate, and having a total population of 696,549, are, marriages, 6,424; divorces in the same countries, 25.

The number of illegitimate children of the whole state is 55,243, out of a total of births of 660,068; in the above countries, illegitimate births, 2,068, out of a total of 26,565.

The total number of deaths in the whole state is 449,621, of which 233,378 fall upon children under five years of age.

In the above countries, total of deaths, 18,144; of which children under 5 years, 8,558.

These figures will speak for themselves.

HENRY STERNE,
Consul.

FRANCE.

REPORT OF CONSUL MASON, OF MARSEILLES.

The statistics of emigration from this port during the past eight years present the following exhibit:

Years.	Emigrants.		Nationality.		Total.	To the United States.	
	By sea from Marseilles.	By rail via Havre, Bordeaux, and Antwerp.	French.	Foreign born.		French.	Foreign born.
1878	5,745	4,589	177	10,254	10,431	18	243
1879	12,182	7,139	536	19,785	20,321	43	5,183
1880	10,072	4,784	708	14,148	14,856	83	3,593
1881	13,305	5,045	859	17,491	18,350	60	3,615
1882	15,863	7,112	799	22,176	22,975	114	3,875
1883	13,967	9,069	803	22,233	23,036	73	5,654
1884	6,482	2,494	472	8,504	8,976	71	630
1885	7,863	3,785	538	11,113	11,651	46	1,141
Total	85,479	45,117	4,892	125,704	130,596	508	23,934

It thus appears that during the past eight years the native French emigration from here to the United States has averaged only sixty-three persons per annum, a number too insignif
of any elaborate

complete their lading and then clear for ports of South America, and it thus occurs that thousands of Italian emigrants are registered as coming from Marseilles, whose only knowledge of this city is the little they have seen of it from a steamer moored during two or three days in the harbor. The vessels of the two regular steamship lines from here to New York touch, *en route*, at Naples or Palermo, and it is there that they mainly receive the thousands of emigrants whom they land every year at Castle Garden. For these reasons only a trifling minority of the emigration which comes nominally from Marseilles can be considered as within the province of this report.

When from a great port like Marseilles, having direct connections with nearly all parts of the world, the aggregate emigration of native French citizens to all countries averages only six hundred a year, it may almost be said that the people of Southeastern France do not emigrate at all. The reasons for this are sufficiently obvious. Persistent and extensive emigration uniformly has for its causes either extraordinary industrial depression, a superfluous population, an oppressive home government, religious persecution, or a restless, nomadic character which impels people to alter their habitat for the mere sake of change.

None of these conditions, except perhaps the first, prevail in Southern France. French people are, perhaps more than any other in Europe, home-loving and patriotic. In general they know very little of foreign countries. They are taught to believe that no country is, on the whole, comparable with their own. Of those who emigrate a majority leave their families at home, and go abroad with the hope of making a fortune in a few years, with which to return and spend the remainder of their days in their native land. Their Government is not oppressive, and it guarantees freedom of religious faith and worship. The rate of taxation is high and military service rigid and burdensome, but the Frenchman recognizes the fact that the taxes which he pays and the martial service which he renders are alike necessary for the support and defense of his Government, and there are few things which a French citizen is not willing to do for the preservation and glory of France.

As a people the French are almost entirely destitute of the nomadic instinct. They lack the facility of the Germans and other European nationalities for acquiring foreign languages and adapting themselves to new and strange conditions of existence. They are not naturally colonists. Life abroad, even under the best conditions, is regarded an exile, to be endured rather than sought for and enjoyed. Moreover, there is no part of this district, except perhaps the city of Marseilles, since the blight of epidemic has fallen upon its commerce and industries, where the population may be considered redundant. In several departments, notably the Basses-Alps and Vaucluse, the population is steadily declining, and there are villages and communes where this decline already causes apprehensions for the future of agriculture. In many districts the land is so rough and difficult that the use of labor-saving farming machinery is practically impossible, so that productiveness can only be secured by a large and constant outlay of manual

[illegible] the rural population therefore trenches

publishing discouraging reports from colonies and immigrants in foreign countries and in urging their readers to be content at home. For the reason, already stated, that most French emigrants expect to return home after having accumulated a fortune abroad, a large proportion go to South America, which, being a comparatively new and sparsely peopled country, is supposed to offer special opportunities for rapid accumulation of wealth. The few who go to the United States are mainly those who have relatives among the people of the Gulf States, or artisans who seek in the great cities of the Atlantic coast a more profitable field for their skilled labor. The one exception to this which has come under my observation has been a movement on part of a small number of young men from the neighborhood of Montpellier, who have sent one of their number to examine the soil and climate of Texas, with a view of establishing there the culture of wine.

It follows from all this that the very limited emigration from this part of France to the United States includes little or nothing of those elements which are coming to be recognized in our country as dangerous and undesirable. The Marseillaise, notwithstanding their record in French history, are neither agitators nor anarchists, and until the recent strike among the coal-miners at Decazeville (just outside the limits of this district) there has been, during the past five years, at least, no serious revolt of the laboring classes in this part of France. There are in this city communists who hold secret meetings and rejoice over the disorders created by their clans in other districts and countries, but they are under careful police surveillance and make no serious demonstration, politically or otherwise. During the communal troubles of 1871, communists, to the number of perhaps 300, rose and seized the prefecture, from which they were subsequently driven by the Government troops, but even this small band of revolutionists were mostly Italians or fugitives from Northern and Central France, and their movement received no active support from the local population. Business went on as usual, and when the abortive revolution was suppressed popular opinion approved the execution of its leader and the transportation of his confederates.

During the recent elections, one candidate of communistic antecedents was included in the list of deputies, but he fell 10,000 votes behind his colleagues, and his recent attendance at Decazeville and his outspoken sympathy with the disorders there have been generally regarded with ridicule.

FRENCH INDUSTRIES.

The industrial situation, which here, as elsewhere in France, is in a state of depression, unless relieved, must compel some increase in emigration. Besides the general causes which during the past five years have affected more or less all French industries, the effects of two successive epidemics of cholera, followed during the past six months by the most prolonged and severe visitation of small-pox in the history of Marseilles, have been disastrous to all classes of commerce and manufacture. Among the coal-miners of this district 11 per cent. of the usual working force was discharged or idle during 1885.

Out of forty manufactories of olive and seed oils, twelve were closed during the year. In the iron [illegible]

force of 3,340 men employed in 1883 was reduced last year to 2,120, a loss of 36 per cent.; out of seventy flouring mills in this department twenty were closed last year, and the remainder for most part were operated only by day, so that fully one-third of their former employés were discharged.

Nothing could more clearly illustrate the peaceable, submissive character of the Provençal working classes and the satisfactory relations between them and their employers than the fact that this steady and prolonged reduction of working force in these several industries provoked no revolt or disturbance. In many cases the suffering and destitution have been pitiful, but the discharged workmen recognize the depression of business as the real cause of their distress, and patiently hope for better times. Mendicancy has increased, and several meetings have been held by the port draymen and laborers to protest against the increased duty on cereals, which has enhanced the price of bread and largely reduced the import and handling of grain at Marseilles, but, as we have already seen, the growing distress of last year produced no appreciable effect upon emigration. Only 538 native French citizens emigrated from here during 1885, and of these 46 only were destined to the United States.

The most noticeable reaction has been against the foreign laborers—notably Italians—whose presence overcrowds the diminished labor market. There are in this city more than 54,000 Italians, who hold toward the native laboring classes a relation somewhat similar to that of the Chinese in the Western American States.

The Italian laborer is quite as industrious and even more economical than the Frenchman. His wants are so few and simple that he can exist upon a small percentage of his earnings, and in a competition of wages he underbids the native laborer. In several parts of this district there have been heard recently sharp protests, attended in some instances by violence, against the Piedmontese, who swarm across the frontier and seek employment in mines and tanneries and upon public works; but these manifestations have been promptly suppressed and denounced as uncivilized and dangerous to French working-people in other countries.

It is not probable that industrial depression will, in future, compel any important increase of emigration from this country. Besides the ingrained national aversion to wandering, there remains the fact that France produces no surplus population.

A comparative study of the birth-rate of this and other European countries shows France to be the lowest, except Ireland, in the scale of human production. While England has a yearly birth-rate of 35 per 1,000 inhabitants, Bavaria 40, Belgium 51, Scotland 35, Spain 38, Italy 37, Germany 38, and Sweden 52, France and Ireland have only 27, and even this low standard of fecundity is steadily declining. In Marseilles, for example, the birth-rate in 1866 gave 1 birth for every 30 inhabitants, but this has gradually fallen off, until the average from 1881 to 1886 has been less than one birth to 35 of the registered population. This loss becomes still more striking when placed in contrast

Coming down to the past three years, a study of the vital statistics of Marseilles presents the following striking results:

Years.	Births.			Deaths.			Death rate per 1,000 inhabitants.	Excess of deaths over births.	Marriages.	Divorces.
	Legitimate.	Natural.	Total.	Total including suicides and murders.	Suicides.	Murders.				
							Per ct.			
1883	9,189	1,569	10,758	11,190	135	19	31.07	432	2,793	.....
1884	9,133	1,645	10,778	12,500	104	18	34.71	1,722	2,704	4
1885	9,348	1,564	10,912	12,152	120	33	33.75	1,240	2,926	135

No census has been taken since 1881 until Saturday last (May 30), the results of which will not be announced for some time, but it is believed by those best informed that the population of Marseilles, which was 233,817 in 1856, 260,910 in 1861, 300,131 in 1866, 312,864 in 1872, 318,868 in 1876, and 360,099 in 1881, has not sensibly increased since that time.

Theorists attribute the decline in the birth-rate of France, and also its increasing death-rate, to the employment of married women in factories and mines, instead of, as formerly, at home and in the fields. The result of substituting this prolonged and excessive labor, instead of the natural domestic duties of women, has been to greatly increase the proportion of still-births and raise the death-rate of children to startling proportions. According to a recent writer (Mr. Pierre Roux), 50 per cent. of all children born in France die before the age of five years. Taking at hazard two local and recent examples, we find that of 38 deaths during the past week at Toulon 24 were of children, while at Marseilles, during the same period, the proportion was 122 children in a total death list of 278.

Morally the condition of Marseilles compares more favorably, its percentage of illegitimate births being only 16 against 23 in Paris, 25 in Brussels, 14 in Berlin, 24 in St. Petersburg, and 41 in Moscow.

The remote causes of a physical decline which, according to published statistics, now causes the rejection for disability of one-third of the 300,000 conscripts annually drawn for military service in France, are of course far beyond the scope of this report, but the facts herein stated will sufficiently explain the limited and decreasing native emigration from this country, and the efforts of the national and local governments to conserve their physical resources by encouraging their people to remain at home.

FRANK H. MASON,
Consul.

UNITED STATES CONSULATE,
Marseilles, June 7, 1886.

GERMANY.

BERLIN.

REPORT OF CONSUL-GENERAL RAINE, OF BERLIN.

STATISTICS.

It is a noticeable fact that German official statistics furnish no classification of the occupations of emigrants. Nor can a comparison be made with our own emigration statistics, as the latter are published for the fiscal year, while German statistics are based upon figures for the calendar year. The discrepancy in the numbers of emigrants to the United States between the statistics of the United States and Germany is explained by the fact that the statistical bureau of the German Empire has control only over figures gathered in German ports since 1872 in Antwerp, and also using French sources in Havre, but has no control over the number of German emigrants embarking at Dutch and English ports, though it may be conceded that a considerable number of Germans emigrating by way of the latter ports go to the United States.

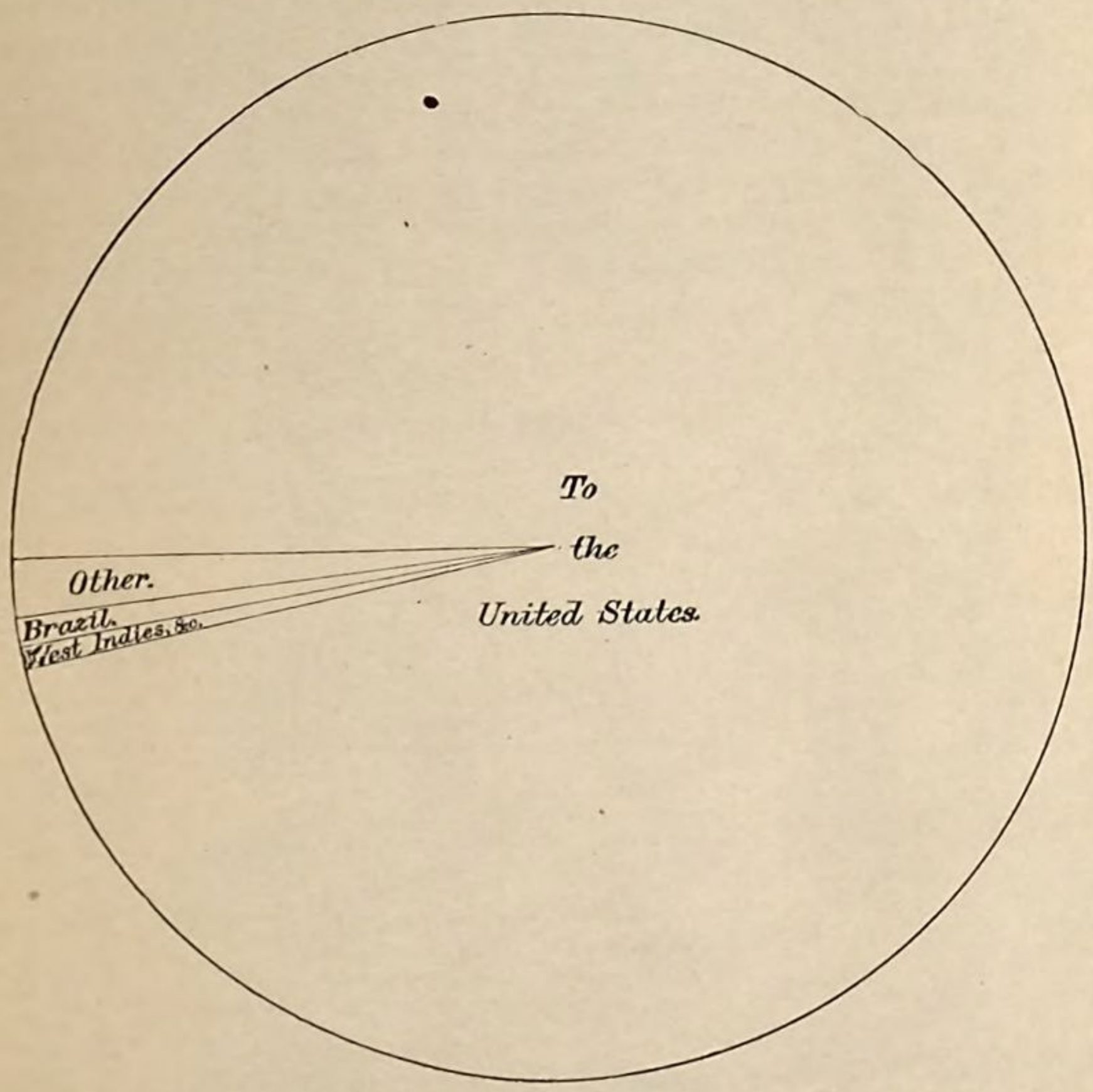
From the above it appears that our returns, generally, state the number of German immigrants higher than German returns, of which I first inclose a table showing the number of German emigrants via German ports and the Belgian port of Antwerp, for the fifteen years from 1871 to 1885, amounting to 1,412,914.

To this number of emigrants must be added the number of German emigrants embarking at Havre. But in this case the country of destination cannot be given. The total number of emigrants would now be as follows:

Years.	Via Havre.	Via German ports, Antwerp and Havre.	Years.	Via Havre.	Via German ports, Antwerp and Havre.
1871	287	76, 199	1879	2, 485	35, 812
1872	2, 593	128, 243	1880	10, 757	116, 947
1873	6, 776	110, 414	1881	10, 251	220, 798
1874	2, 511	47, 623	1882	9, 590	203, 459
1875	1, 489	32, 262	1883	7, 455	173, 574
1876	1, 258	29, 626	1884	5, 393	148, 979
1877	939	22, 903	1885	2, 790	106, 432
1878	1, 399	25, 616			

Hence the grand total of all German emigrants within the said fifteen years (1871 to 1885) amounted to 1,478,887. A comparison of the German emigration with the over-sea emigration of other countries is shown by the following table:

DISTRIBUTION OF EMIGRATION FROM GERMANY IN 1884.



Of every 100,000 inhabitants, there emigrated in the years 1873, 1880, 1885, in which years the absolute figures of emigrants from the whole Empire were nearly equal:

1873	103,638
1880	106,190
1885	103,642

The different parts of the German Empire lost the following numbers of persons emigrated "over sea" for every 100,000 inhabitants:

Where from.	1873.	1880.	1885.	Where from.	1873.	1880.	1885.
East and West Prussia	492	857	720	Wurtemburg	254	444	258
Brandenburg (including Berlin)	125	134	169	Baden	297	311	220
Pomerania	959	691	762	Hesse	235	326	259
Posen	702	601	586	Mecklenburg (both)	1,085	241	393
Silesia	57	70	71	Oldenburg	363	299	402
Saxony (province)	72	63	87	Brunswick	93	103	76
Schleswig-Holstein	596	569	561	Thuringian states	143	118	118
Hanover	338	350	421	Anhalt	64	55	45
Westphalia	79	153	120	Waldeck	166	242	354
Hesse-Nassau	253	268	231	Lippe (both)	113	133	242
Hohenzollern	156	231	156	Lubeck	163	149	208
Bavaria (right side of the Rhine)	184	183	166	Bremen	408	560	589
Palatinate	281	263	307	Hamburg	331	339	368
Saxony (kingdom)	96	139	92	Alsace-Lorraine	30	17	48
				Total	251	236	224

Emigration, by sex and age, in 1885.

Age.	Male.	Female.	Total.
Under 1 year	2,243	2,322	4,565
1 and under 6 years	4,945	4,765	9,710
6 and under 10 years	4,772	4,563	9,335
10 and under 14 years	2,263	2,028	4,291
14 and under 21 years	10,733	10,322	21,055
21 and under 30 years	16,068	11,710	27,778
30 and under 40 years	7,504	5,364	12,868
40 and under 50 years	3,700	3,191	6,891
50 and under 60 years	2,203	2,213	4,416
60 and under 70 years	1,101	1,112	2,213
70 years and over	213	175	388
No age given	82	50	132
Total	55,827	47,815	103,642

OCCUPATION.

As to the occupation of emigrants, no statistics are kept in Germany.

C. Herzog, late Imperial assistant secretary (for Alsace-Lorraine), in speaking upon this subject, referred chiefly to American estimates.

Remarkably low is, according to his statement, the number of emigrants who have a professional occupation, about three or four per one thousand emigrants; but he infers that the number must be larger, as many persons of this kind go to the United States as mere visitors, and change afterwards from visitors into permanent residents. Such persons, not arriving in emigrant vessels, are simply recorded as passengers. Musicians, authors, architects, apothecaries, and professors of graphic arts seem to be quite numerous.

Within the group

From Exhibit A it appears that the bulk of Germans go to the United States; only 3 to 6 per cent. are scattered in other directions. Of some note is also the emigration to Brazil.

CAUSES OF EMIGRATION.

The causes for emigration represent peculiar features. As Roscher, the renowned political economist, says:

> No incorrupt man will solve the tie which binds him to his parents, his father's house, his remembrances of childhood.

Apart from the few who have particular reasons of their own to see foreign countries, it can be safely asserted that the true cause of emigration is dissatisfaction with the conditions under which people live at home, and the desire to improve their personal and material comfort. Roscher has condensed them, as follows: Surplus population, surplus capital, surplus of educated men not available; finally, a certain political or religious discontent, hence disproportional relations to society (family, state, church, and property).

Regardless of the cause of surplus capital, or rather concentration of capital in the hands of a limited number of men, the facts stand forth that political and religious differences and dissensions in several epochs of history have resulted in extensive emigrations, particularly in times when either strong Governments were wanting or when Governments had been usurped by privileged classes.

It may suffice to allude to the Greek colonies of ancient times; to the colonization of Iceland by the aristocracy expelled from Norway, and, especially, to the origin of our own country.

Concerning modern emigration, it may be granted that, irrespective of those persons who, in conflict with social and other laws, preferred to leave their homes, a large number of persons went to our shores in order to find the "promised land" of liberty and equality, the land "where milk and honey flows."

The incomparably rapid increase of the United States in population, wealth, and political power, which, since half a century, has raised them to the rank of the first nation of the globe, exercised, of course, a great attractive power, with their enormous extent of untilled fertile soil, a quick and clever utilization of modern traffic facilities and the expediency of their political institutions, warranting to every one the necessary security for his person and property and fair play to develop his individual faculties.

Religious dissension is also one of the causes of emigration, as it was at the time of the Pilgrims, who first settled in our now so prosperous New England States, and two hundred years ago, when the Huguenots sought new homes in England, Ireland, and Prussia (then an electorate, Brandenburg), where, especially in the latter country, they became the founders of silk and other now thriving industries.

To what extent the recent Prussian church (May) laws (now about to be abolished) have led Catholics to expatriate themselves, is beyond my

gave a table showing the yearly increase of population for 1884 in several European countries, as follows:

Countries.	Increase.	Period of doubling.
	Per cent.	*Years.*
Germany	1.50	47
Great Britain	1.40	51
Netherlands	1.35	52
Denmark	1.28	54
Austria	1.15	60½
Belgium	1.13	61
France	0.36	200

And pointing to the necessity for Germany to extend her dominion, I continued to report that—

> Even if we place the number of emigrants on the average at 80,000, according to German statistics, or more (about 100,000, according to ours), per annum, hardly 16 per cent. of the increase are absorbed by emigration.

As will appear from a table here appended, the excess of births over deaths for 1884 in Germany amounted to 550,953 in number, leaving for this year 407,367 as surplus population, when 143,586 emigrants are deducted from the total number of the excess of births.

The number of marriages concluded, births and deaths of illegitimate children will appear from the inclosed tables marked Exhibits B and C. These tables compare the figures of the decade of 1875 to 1884, both inclusive.

Concerning the question as to the density of population, Dr. Elreberg, of Erlangen, gave for the year 1880 the following percentage of men per 1 square kilometer:

Germany	83.7
France	70
Italy	95
England	110
Netherlands	128
Belgium	186

If guided by these figures, it can easily be seen that although Germany has not only a large population, but also a large yearly increase of population, yet it must be conceded that there are other countries with a still larger population, but without an emigration, that would reach even approximately the lowest number of German emigrants.

Untenable seems, therefore, the assertion that Germany suffers under an onerous surplus of population, since it is notorious that the provinces with smaller density, Pomerania, Prussia, Posen, &c., show the largest percentage of emigrants, and that national wealth is growing at the same ratio as the number of population increases.

In those provinces exist very extensive landed manorial estates, where there is no chance for small farmers to purchase a homestead, or for the settlement of agricultural laborers in large numbers, as there is no full work for all of them throughout the whole year. In many instances those landed proprietors have resorted to machines to dispense with a sometimes doubtful class of laborers who came from other German districts to find employment, for the different [illegible] harvest times. But [illegible]

Thousands of working families pass through Berlin every spring to go to the sugar-manufacturing districts in the province of Saxony. In the fall they repass on the way home. Many of them use then their savings to found an undisturbed home in the United States.

INCOMES ARE DISPROPORTIONATE.

Though, as above stated, Germany's wealth, as a whole, increases with its population, yet the distribution of property is not normal and incomes are disproportionate. I give an example:

In 1885 Berlin's population amounted to about 1,300,000 persons; of this number about 200,000 were free from class-tax (the lowest tax collected), as their respective income did not reach the minimum of 420 marks, the limit for the payment of class-tax as prescribed by law.

One hundred and forty-eight thousand one hundred and twenty-eight had an income of 420 marks and upwards; 121,502 had 661 and upwards; 27,777 had 901 and upwards; 21,632 had 1,051 and upwards; 11,970 had 1,201 and upwards; 14,739 had 1,351 and upwards; 5,552 had 1,500 and upwards; 7,770 had 1,650 and upwards; 5,721 had 1,800 and upwards; 6,667 had 2,100 and upwards; 2,838 had 2,400 and upwards; 4,221 had 3,000 and upwards.

Taxes in Prussia collected on incomes from 220 marks to 2,999, both inclusive, are called *Klassensteuer* (class tax), while taxes levied on incomes of from 3,000 marks and upwards are called state income tax.

Still more instructive is a comparison of Berlin persons paying this latter tax. Of 1,250,000 inhabitants only 30,000 pay state income tax—5,100 had an income of 3,000 marks and upwards; 4,000 had 3,600 and upwards; 3,000 had 4,200 and upwards; 2,700 had 4,800 and upwards; 1,000 had 7,200 and upwards; 1,000 had 8,400 and upwards; 1 had 9,600; 1,100 had 10,000 and upwards; 820 had 12,000 and upwards; 101 had 18,000 and upwards; 81 had 54,000 and upwards; 81 had 60,000 and upwards; 56 had 72,000 and upwards; 52 had 84,000 and upwards; 43 had 96,000 and upwards: 23 had 100,000 and upwards; 27, 19, and 23 had more than 200,000; 8 had 240,000; 10 had 300,000; 5 had 360,000; 1 had 420,000; 5 had 480,000; 3 had 540,000; 4 had more than 540,000.

It is stated that from 500 marks, in the year 1869, the average income per year and person in Berlin went up to 627 marks in the year 1874; from and after this year such income went steadily downwards, reaching in 1883 the amount of 499 marks. Since then it went up again a little, to 534 to 555 marks. If overcrowded districts, which are mostly those where nearly exclusively manufacturing is carried on, contribute the largest percentages to the emigration, Berlin would be such a place; but, on the contrary, it attracts every year thousands and thousand of persons born in farming districts, who seek and find employment as servants, day laborers, &c.

The very same farming districts show also the largest number of emigrants, viz:

Districts.	Inhabitants per square kilometer.	Emigrants per 1,000.

From this statement it is shown that the largest industrial districts, Saxony (Kingdom) and Rhineland, have the smallest number of emigrants, and *vice versa*.

OCCUPATION OF EMIGRANTS.

Herzog states that during the American fiscal year ending June 30, 1883, about 194,786 Germans immigrated into the United States; 857 of them were artists, authors, architects, chemists, &c. (professional occupations); 25,190 had skilled occupations; 51,282 were farmers, day laborers, servants, and dealers of goods, &c. (16,961 farmers, 25,586 day laborers, 3,357 servants, &c.); 117,161 German immigrants had no occupation whatever, being mostly women and children.

They are, therefore, mostly skilled artisans who emigrate, and farmers, day laborers, most of the latter being agricultural laborers, who will seek to get an independent existence after having done day's work for some time.

The percentage of emigrants out of men employed here in factories and mills seems to be of no account, as their inferior or one-sided training is their stumbling-block. They could find employment in America only as helpers at machines similar to those at which they worked at home. They would not materially change their condition in America.

PEASANT FARMERS.

But that formerly large portions of German population, consisting of mechanics, artisans who work at home and possess not only their own houses, but also small tracts of land which they till (in German also called *Ackerbürger*), being half farmers, half traders, they were and continue to be fittest for emigration. The probability of getting along better, or to improve their condition in America, is for them by far greater, as they are familiar with two branches of occupation. If farming does not pay or give employment, they resort to their trade.

To a much greater extent, however, than those house manufacturers, farming classes share in the number of emigrants. They have, through friends already settled in America, information sufficient to compare the condition of agriculture both here and in America.

As already reported in my annual report (see page 204 of Consular Reports, No. 61, February, 1886), last year prices of wheat and rye, the chief breadstuffs, notwithstanding the repeated increase of German tariff rates, were lower than ten years ago.

The present year, 1886, does not show any rise of prices at Berlin (the increase of duties took place in the years 1879 and 1885).

Breadstuffs.	1875.	1880.	1886.
	Marks.	*Marks.*	*Marks.*
Wheat	188.175	212.226	153.75
Rye	140.170	210.213	135.35

A farmer who thinks of the future will have the conviction that, under the circumstances existing, he will h[illegible]

ROMAN INHERITANCE LAW.

In Germany the Roman inheritance law is in force, which allows, or rather prescribes, settlement of estates by partition, either *in natura* or in money. In the former case the dismemberment of even a large real estate makes a systematic rotation in farming impossible, while in the latter event the keeper of the estate may be involved in such an amount of debts that he gets ripe for bankruptcy. German states have no such law as the American homestead law to protect him from ruin.

The Palatinate in Bavaria, for instance, where the greatest dismemberment of real estates is said to have taken place in Germany, contributes, therefore, large portions to the number of emigrants. The brothers and sisters of the keeper of the estate, instead of allowing themselves to be lowered into the position of mere servants, prefer to go with the money they receive as their shares to America, where to go they are often invited by former fellow-countrymen, who send them sometimes tickets or money for passage.

One of the leaders of the German Colonial Association was some time ago informed by a member of the North German Lloyd, Bremen, that for many a year about 60 per cent. of all emigrants forwarded on board their steamers had gone to the United States at the inducement, and mostly with the assistance, of such members of their families as had already firmly settled in the New World.

This and many other causes and reasons tend to prove why the main stream of emigration continues to go to the United States. Other reasons are to be found in the relative shortness, safety, and cheapness of the passage, as well as in the facility by railroads to enter the interior of the country; in the possibility to acquire there real estate at a cheaper rate than in Germany; in the salubrity of climate, which is similar to that of Central and Northern Germany, and which admits of farming similar to the German; in the affinity of language and manners of the predominant Anglo-Saxon population with the German; and, above all, in the prospect to get an independent husbandry and homestead to live upon his own ground.

PAUPERS, INSANE, ETC.

It is conceded by parties familiar with the subject that persons having no such support emigrate only in a very limited number. It is even stated as a "deplorable fact" that the very classes of population Germany could most easily dispense with, such as idlers, financial and moral bankrupts, insane, light-minded, and paupers, participate only to a minimal percentage in the emigration. And the latest measures taken by our Government against landing of such persons may have considerably reduced even that percentage. It could, however, hardly be prevented that scapegraces, provided with all the means required by our laws, are shoved over to our shores by relatives and parties being ashamed or afraid of them.

Even during the short time that I have been in office I have had fre-

TESTIMONIALS OF FITNESS AND CONDUCT, ETC.

But to recur to immigrants not desirable, it may be stated that, as a rule, by far the largest portion of persons above described, even if they were available, do not possess the passage money. Just the less skilled and poorest classes of the proletariat remain at home and perpetuate in their children pauperism and misery.

Cases, however, where communes, at their expense, might shift over to America such class of individuals, have, up to date, not come to my knowledge, though I have but little doubt that, by some means or another, persons of their kind have been shipped to the United States.

The bare resolution to emigrate on one's own strength, to defy the further uncertainty, and to be willing in new foreign relations to fight for a better existence than he enjoyed heretofore at his old place of domicile, presupposes a not ordinary degree of courage, self-confidence, energy, and vigor. Nay, it can be stated as a general rule that only middle classes can afford to emigrate, upper classes only exceptionally emigrating. It is even deplored in Germany that this diminution of the middle classes serves to enlarge unduly the gap between rich and poor, in the enlargement of which many other potencies are in full activity. It is further deplored that the very best industrial and productive classes, in comparatively large percentages, leave the ranks of German producers to enter the ranks of foreign competitors, taking with them millions of marks. Single statisticians estimate the loss Germany has thus far suffered (since 1820) at seven, others at twenty-two, others even at more milliards of marks.

Another question would be to what extent the sum flowing back, under the laws of descent, to the old country, serve to balance the account between the old and the new country.

MILITARY SERVICE.

If in former years, say prior to 1866, the burden of military service was borne unequally by the several German states,* this was no longer the case after the war of 1866, and there, where the innovation was more sensibly felt, military service must be regarded as a cause of emigration. After the war of 1870–'71 this applies also to Alsace-Lorraine. In fact the latter country, and after 1866 Hanover, had long lists of young people who tried to avoid military service by emigration. But this state of things has much changed since the general introduction of uniform liability to military service in all states of the German Empire has become customary. Of course no rule without exceptions.

Generally, Germans are fond of military matters. From the oldest times, when they first appeared in history, to the lansquenets of the Middle Ages and down to the present day, Germans have been known as brave warriors.

Throughout Germany there is now a well-connected net-work of so-called *Krieger-Vereine* (Warriors' Unions) of at least half a million in number, possessing a firm organization, with the express object of supporting order and the welfare of the "Fatherland."

The influence of a military training is observable in Germany everywhere. Everybody can make the same observati[illegible]

Consul Tanner

Every able-bodied, moral young man, whether rich or poor, high or low in social standing, has to pass through the same school of strict obedience, order, promptitude, and faithful fulfillment of duties. How many an uncouth and feeble lad from the country has by such service become a manly, versatile, and orderly fellow.

Convinced that there is no true liberty without order and subordination, they transplant such principles into their civil life, into their families. The husband is in Germany the head of his house; wife and children range according to their natural standing and duties.

TAXATION.

To what degree taxation induces to emigration can hardly be stated. If business is good and incomes are sufficient, of course the collector of taxes meets with but little difficulty, but if their suppositions do not hold true, the collector of taxes is to the common people a dreaded person, who appears often where there is no farthing in the purse. Then a notice is left that if taxes have not been paid within a short time thereafter execution shall take place.

Prince Bismarck read some years ago an amusing number of such executions to the Reichstag, which had taken place, especially in the larger cities; and he did so to induce the Reichstag to decide in favor of indirect taxation, or, at least, of abolishing class taxes collected on a lower amount of income than 1,200 marks.

As all direct taxes cause much complaint and uneasiness, particularly among lower classes of people, the German Government has repeatedly declared that it is their earnest endeavor to gradually transform direct into indirect taxation by increasing import duties and taxes on tobacco and whisky, but these efforts have had as yet but little result, as such measures are much opposed by the Liberal and "Centrum" majority of the present Reichstag, which seems to fear that direct taxation would place a greater financial and political power in the hands of the Government than would be consistent with the rights of the Reichstag to provide every year for the necessary appropriations of the budget.

CLASS TAX.

In Prussia all persons having an income less than 900 marks ($214) are exempt from class tax, while persons with an income of from 900 to 1,050 marks pay 9 marks per year; 1,050 to 1,200 marks, pay 12 marks; 1,200 to 1,350 marks, pay 18 marks; 1,350 to 1,500 marks, pay 24 marks; 1,500 to 1,650 marks, pay 30 marks; 1,650 to 1,800 marks, pay 36 marks; 1,800 to 2,100 marks, pay 42 marks; 2,100 to 2,400 marks, pay 48 marks; 2,400 to 2,700 marks, pay 60 marks; 2,900 to 3,000 marks, pay 72 marks. Higher incomes pay a so-called state income tax. The income tax is levied on the income derived from (1) real estate; (2) capital; (3) trade, business, or from any paying occupation.

TRADE TAX.

in one class at a certain place, and the medium from the total of such tax hitherto paid is found to be 30 marks, the amount of the tax will be for the next fiscal year $30 \times 80 = 2{,}400$ marks.

In case the tax-payer is not able to pay the medium tax, a lower rate is granted him, and the amount falling short is added to the taxes of the other rate-payers, but the total of 2,400 marks must be paid by all the 80 trade-tax payers, no matter at what percentage each of them shares in this total, previously estimated and fixed by a committee of members, a moiety of which is chosen from the respective class of trade-tax payers, and the other moiety appointed by the Government.

This system is rather complicated.

TAX ON BUILDINGS.

This tax is paid for all buildings, court-yards and house-gardens belonging thereto, if their area exceeds 25 acres 53 square meters (1 Prussian morgen equal to about 1 acre, 1 rood, 1 perch) in extent. Exempt therefrom are all public edifices of state, churches, schools. Tax is paid at the rate of 4 per cent. on the premiums derived from rentals of dwelling-houses, while 2 per cent. is paid on revenue from buildings devoted to industrial and commercial purposes.

TAX ON LANDED ESTATES.

This (ground tax) is paid in Prussia at the average rate of 9.50 per cent. on the net proceeds of such estates. Real estates belonging to the state and other commonwealths are exempt. In addition to these taxes collected for the state, the communes are under law permitted to collect so-called municipal taxes to defray the expenditures for local purposes. Many cities continue to levy an excise laid on articles of food (mill-ground articles, cattle, meat), imported for consumption (*Mahl- und Schlachtsteuer*). In Berlin this excise is not collected, but it derives its revenues from three other kinds of taxes, viz, from—

(*a*) *House tax.*—Paid by the owners of the houses, at present at the rate of $2\frac{1}{2}$ per cent. of the amount of rentals received, and

(*b*) *Rent tax.*—Paid by the tenants at the rate of about $6\frac{2}{3}$ per cent. of the amount of rental paid.

(*c*) *Municipal income tax.*—This is collected mostly at the rate of 100 per cent. of the amount of class or state tax paid.

School moneys are no longer collected in nearly all the larger cities, though in the country this is still the case.

GERMAN EMIGRATION LAWS.

CONSTITUTIONAL PROVISIONS.

An unrestricted right to emigrate was provided for under the constitution framed for the German Empire as it existed for a short time, 1848–'49.

The constitution afterwards adopted by the individual states of Germany recognized likewise the right of [illegible]

one, but [illegible]

footing. Permission to emigrate shall be refused to them if they are called in for actual service.

With regard to infants, insane, and other persons having no political capacities at all, emigration can be restricted in all cases where the fulfillment of liabilities under the civil law may be frustrated by emigration.

According to Article 4 of the constitution of the present German Empire, the latter shall be competent in all matters of emigration under the state law, penal and civil law.

THE CIVIL LAW.

The civil law (administration, police law) refers to the emigrant taking with him his family and property, the (licensed) emigration agent, as representative of the ship-owner, the ship-owner himself, master, and crew of the vessel.

Under the civil right the basis of emigration is an agreement, in which the mutual services and liabilities both of the ship-owner and the emigrant are defined, such as charges for passage, manner of lodging, embarkment, landing, board during passage, obedience to shipping regulations, reimbursement or forfeit of passage fare, extent of admissible luggage, &c.

It lies in the nature of things that the contracting parties do not stand on the footing of equality.

Therefore the state has to regulate the contents of the emigration contracts, so that the ship-owner, by abusing his technical superiority, cannot liberate himself from a responsibility incumbent naturally upon him.

The minimum of his liabilities towards the emigrant is therefore regulated by law to the exclusion of all private agreements contravening. Upon the emigration police the following duties are enjoined: Emigration agencies are to be controlled, to prevent fraudulent enticements and fleecing of inexperienced persons; further, the treatment of emigrants at the ports of embarkment and when on board, where moral interests, in a sexual respect, apart from hygiene, shall be taken care of.

Under the German penal code illicit emigration of persons of an age liable to military service shall be cognizable by a fine of from 150 to 3,000 marks, and by confiscation of their property for the payment of such fine, especially in cases where the highest amount of fine has been imposed; while a minute-man (*Reservist*) on leave of absence (*Beurlaubt*), or *Landwehrmann* (man of second levy), who emigrates without the permission and knowledge of his superior military authorities, shall be fined a sum of not exceeding 150 marks.

Desertion, of course, is punished as such according to the provisions of severe martial law.

EMIGRATION AGENTS.

As above stated, the supervision over and legislation on emigration [illegible] prerogatives of the Empire; thus, in 1874, an im- [illegible] at Ham-

In addition to the supervisory powers of the Empire, many laws of the several German states continue to remain applicable. Their chief principles are stated to be as follows:

(1) Persons to engage in the acquisition and transportation of emigrants shall be bound to obtain first a license as such from their respective Governments, and to deposit bonds to warrant faithful fulfillment of all their liabilities to state and emigrants.

(2) Keeping of books as prescribed by law, subject to the inspection of the authorities.

(3) A series of special quantities for a faithful performance of the contract, which has to contain certain articles prescribed by law; for instance, that each party interested has to receive an exemplified copy of such contract, liability of the agent and his principal for accidents during the passage (delay, naufrage), and a corresponding security by special bond or insurance.

(4) Taking care of good and suitable condition and equipment (spaciousness, sufficient and good supply of provisions) of emigrant vessels.

In summing up this part of my report I wish to state that nobody is prevented from emigrating who has freed himself, in the legal form, of all his liabilities to the Empire, state, and private persons.

EMIGRATION TO THE UNITED STATES NOT LIKED.

Complaints are raised that the stream of emigrants was not in proper times systematically directed to countries where they could have remained Germans and have become consumers and not producers of German commodities.

The colonial policy adopted in recent time is therefore intended to make up for the alleged loss hitherto sustained. As a rule, leading German circles are no longer in favor of Germans emigrating to the United States and Canada. To what extent and by what influences emigration, as appears from inclosure A, in the last five years (and in each of these years more) was checked can hardly be stated. In 1885 the number of emigrants was 103,642, as against 210,547 in 1881.

In my last annual report I said:

> This considerable decrease in 1885 seems to show that either the economical condition of Germany has improved, and that the attractive power of America, which heretofore took the largest portion of emigrants, has diminished, or that the new colonial policy of Bismarck keeps many on the fence.

This still proves true. Since then a new measure was adopted by the Prussian Government relating to colonization at home.

The eastern provinces of Prussia and Posen, especially in districts where there is a mixed population (Polish and German), showed not only the highest number of emigrants and thinnest population, but also the lowest degree of industry and worst condition of farming, though they have a more fertile soil than many other provinces. The circumstances that the percentage of Germans, as compared with Poles, diminished constantly attracted the attention of the authorities, and it was finally found that the impossibility of many sons of German farmers, &c., considering the many large manorial estates, to get an independent husbandry and homestead, drove many valuable elements away, leaving behind a not desirable class of people.

Now, recently Prussian legislative bodies have passed a law appropriating 100,000,000 marks for

STRIKES.

It could hardly be asserted that strikes lead to emigration, since the very best and most needed classes of artisans, for instance those engaged in the building trade, have been making efforts to raise their wages still farther by means of strikes, while the least paid are those working classes who can easily be substituted by others. Those belonging to the former classes require a more robust constitution, and are not so numerous as the latter. So their larger number causes a greater competition for work in certain branches, resulting in lowering wages so much needed for the most indispensable necessaries of life. Thus the latter have no means to emigrate.

Several strikes have this year taken place in Berlin, but they turned out only to a very inconsiderable extent in favor of the strikers.

Regarding the result of the strike of the journeymen masons in Berlin the organ of the German builders (*Baugewerbe-Zeitung*) says:

> Their strike is at an end, and it has not had the desired effect of establishing the minimum wages of 50 pfennigs (11.9 cents) per hour. In fact no minimum wages were established at all, but journeymen received pay according to their ability. At present about 5 per cent. receive less than 45 pfennigs (10.7 cents), per hour, 45 per cent. receive 45 pfennigs (10.7 cents), 45 per cent. 50 pfennigs (11.9 cents), and about 5 per cent. more than 50 pfennigs (11.9 cents) per hour.
>
> The strike was ineffective; there were always plenty of journeymen masons ready to go to work on the buildings where the striking workmen had quit and these newly employed journeymen received the protection of the police; consequently the strike was in every case of short duration.
>
> It has also been established without a doubt that the large majority of journeymen masons in Berlin care little for the continuation of strikes or prolongation of useless agitation. The journeymen have frequently expressed themselves as thoroughly contented with the energetic measures of the police which enables them to work undisturbed and to exercise their own inclinations.

EFFECTS OF EMIGRATION ON GERMANY.

Herzog, speaking on this subject, says:

> No doubt exists that Germany thereby sustains a heavy loss of population.

Another author, Scherzer, estimates the total emigration as follows:

	Persons.
1821–'30	8,000
1831–'40	177,000
1841–'50	485,000
1851–'60	1,130,000
1861–'70	970,000
Total, 1821–'70	2,770,000
According to official returns:	
1871–'80	595,151
1881–'85	817,778
Total, 1821–'85	4,182,929+63,183 via Havre.

Herzog goes on to say:

> During the last four years (1879–'83) alone Germany gave off more emigrants to [illegible] of her whole army on the peace footing amounts [illegible] highest working

I am informed that it has become customary in Germany during the recent years to give soldiers in actual service leave of absence to assist such farmers as make application for help during harvest.

As for the favorable effects, Herzog says further:

> They are best illustrated by the simile of a too-densely grown wheat-field or forest preservation, in which, by removing part of plants, room and light are created for the remainder. If we bear in mind that the 4,000,000 who since 1820 left Germany for the United States should have remained in the "Fatherland," and been fertile and increased in number, the German Empire would have at present most probably a large number of population than the United States, but it would nevertheless be probable that the majority would have to conduct a mode of living under worse conditions than they are at present. If this favorable effect of emigration can but with difficulty be ascertained in detail, another advantage can easily be recognized, namely, the one which a permanent connection of the emigrants with the former home brings on for commerce and industry. This connection is stronger and more durable than generally supposed. Even if the emigrant renounces his nationality; nay, even if he loses the use of his mother tongue, the economical relations continue to subsist with great tenacity. The considerable extent of the German exports to the United States, Brazil, and Chili is in the main caused by the larger number of German immigrants.
>
> Knowledge of the locality where to buy goods, national customs and habits, and a predilection for their old home contributes to decide would-be purchasers in favor of the old native country. The ways once being opened to commerce the relations between the two countries are easily maintained and strengthened.

GERMAN EMIGRATION TO SOUTH AMERICA DESIRED AND FOSTERED.

Great efforts have of late been made by German colonial and other associations to give the stream of German emigrants another direction than to the United States, where they say German nationality and language is easily lost in the intercourse with a kindred tribe and idiom. Great hopes are therefore entertained with regard to the three southern states, Brazil, Uruguay, and Paraguay, having vast fertile districts with a population next to nothing, situated under a temperately warm sun. The opinions of scientific explorers and practical men have confirmed that from the nature of agricultural produce obtained there, these states, as well as Argentine, would not, like North America, serve to make German immigrants formidable competitors in the production of breadstuffs, while, by and by, they would become valuable customers for German manufactures.

It is also claimed that the natives of South Brazil, with their idiom, their manners, and customs are more foreign to German immigrants than the United States, retarding amalgamation with the native element. To prove this, attention is directed to the development of three Brazilian provinces, Rio Grande do Sul, Parana, and Santa Catharina. About 200,000 Germans have settled here, steadily increasing in number, both by births and new immigrants from Germany, but retaining their German language and manners in church and school.

GERMAN COLONIES.

German colonies have as yet, except perhaps the acquisitions in the South Sea (New Guinea, &c.), not been deemed proper fields for German farmers; but as purveyors of raw material and colonial and such goods as are not produced in Germany, they are likely to [illegible] an important [illegible]

CONDITION AT HOME.

The general condition of the German people at home, especially in reference to those classes which contribute largely to the number of emigrants, viz, farmers, agricultural laborers, and artisans, I shall attempt to state, and, in addition to the information above given, some other features.

The decline of German farming is a subject much discussed in Germany.

For a better understanding of the mode of farming, it may be well to say that German agriculturists make a distinction between large landed estates with net proceeds of at least 1,500 marks per year, consuming only the smallest portion of their produce.

Mittelgüter (landed estates of about 50 to 100 hectares) of arable land under cultivation, with net proceeds of at least 300 marks. Small estates, with 5 to 20 hectares, where the keeping of a plow can still be afforded, with lowest net proceeds of 90 marks, and dwarf (truck) farms (*Zwergwirthschaften*, spade husbandries), where the plow is replaced by the spade, or the work is done with the help of hired teams.

Compound estates (*Gütergemenge*) where a whole tract of land, under the superintendence of an official surveyor, was subdivided into a number of triangles, the owners or farmers of which constitute the inhabitants of a village. The term *Gütergemenge* is used in contradistinction to the old German *Hofwirthschaft* (domain husbandry), where the estate forms a whole, in the center of which the husbandman resides, as it is still the case in Schleswig, Oldenburg, East Frisia, and Westphalia.

Large husbandries, surrounded by smaller and spade husbandries, exercise a beneficial influence upon the whole developement of culture of the surrounding population by their perfecting the cattle-breeding; by the introduction of better and newer modes of cultivation; by the storage of supplies, and, in many cases, by grand industrial trades connected therewith (manufacture of spirits, sugar, starch, &c.), and by furnishing to manufacturers and cities large quantities of superfluous products and raw materials.

In times of failure and death their usefulness is quite obvious. An agriculturist (Poussanie) says:

With all the greater well-governed nations of an old civilization, a gradation of husbandries from the smallest tract of land up to the large estate should exist everywhere, so that every individual should have a chance of improvement. For with maxims of an old civilization, a high degree of individual and general progress can exist only when they develop their forces harmonically, *i. e.*, if they have fostered agriculture, industry, and commerce in reasonable proportion, or, in other words, if they have realized a subdivision of labor in the most perfect manner.

THRIFT OF HUSBANDRY.

Considering the heavy pressure which, according to the same expert, for centuries, except in Northern and Eastern Prussia, weighed upon agricultural laborers, and the present progress of transformation of all political, social, and economic conditions of Germany, a reasonable and paying husbandry at times, when on the most estates expenses have

land, cheap fuel; in case of sickness, medical treatment free of charge; sickness-funds; further life insurance, and insurance of chattels against fire should be provided for them.

As already stated, the Reichstag has this year passed the bill to extend the benefits of the so-called *Unfallversicherungs-Gesetz* (insurance in case of accident) to agricultural and forest laborers. In other respects the ideas above suggested have already found application on some of the larger estates.

KIND OF INCOME OF AGRICULTURAL LABORERS, ETC.

In Germany there are three classes of them: Free day laborers, receiving mostly wages in money, and partly conducting a migratory life according to season and place of employment found, while servants and contract day laborers receive compensation in land let out, produce, and in money. They are engaged per year or even for a longer period. Contract day laborers are mostly found on large manorial estates.

Household budgets and rates of wages of such day laborers are published in the report of my predecessor, Mr. Brewer (see pages 210 and 211, Vol. I, Europe Labor Report, 1884). Wages have hardly much changed since then.

The material condition of these laborers is stated to have much improved as compared with a state of things twenty or thirty years ago. The prices of so-called colonial goods (sugar, coffee, spice), and especially of clothing material, have not risen in the same proportion as wages.

Most of these laborers either produce themselves or receive wages in produce, namely, breadstuffs, potatoes, milk, meat, fuel, and dwelling.

Laborers owning land have generally houses of their own. On their land they cultivate potatoes, vegetables; produce in their own husbandry milk, meat (especially pork), eggs, &c. They mostly bring up more hogs, fed by the waste produce, than they want for their own consumption. When fat, the hog is sold in the next market, and out of the money of sale they increase their live stock. It was especially in their favor that higher duties on imported meat and lard were introduced by the German Government. The present price of pork is 50 to 70 pfennigs per 1 pound ($\frac{1}{2}$ kilogram) in Berlin (against 55 and 75 pfennigs in 1876), and for lard at present 33 pfennigs against 80 pfennigs in 1876.

With all the laborers, also with those who hired only a tract of land, the wages in money serve materially to cover such necessaries of life where a rise of price took place only in an insignificant manner.

The condition of dwellings, especially on the manorial estates of Northern Germany, has much improved.

As for morals, complaints are often raised of the laborers becoming less economical and more pretentious. Others have noticed in some districts a greater propensity for spirituous liquors; in Posen, Prussia, and Silesia, for brandies; in Southern Germany, for beer. In some counties, neighboring large cities, a spirit of opposition and discontent is noticed, mostly inspired by socialistic doctrines.

Mental education is stated to be improving. The [illegible] not able to read or write [illegible]

CONDITION OF INDUSTRIAL LABORERS.

The recent riots and labor disturbances in England, Italy, France, America, and particularly in Belgium, have again directed the attention to the socialistic problem still waiting for a solution satisfactory to all parties concerned.

It has not escaped my attention that in Germany the socialistic agitation has been comparatively of a quiet character. This may be due partly to a more discreet leadership, partly to the vigilance of a strong Government, partly to a regular employment, and finally to certain protective measures inaugurated for the benefit of the workmen. In 1883 an act was passed providing for the insurance of working men in case of sickness. Another act was passed in 1884 to insure in case of accidents industrial workmen (about 4,000,000 in number); this latter act has this year been extended to agricultural and forest laborers (about 14,000,000 in number), while another act was passed for indemnification of officials of the Empire in cases of accident. Besides this, a bill to protect all working men in old age is under contemplation.

If true causes of just grievances of laborers and practical means could be found to remedy all evils resulting therefrom it would be an easy task to remove the effects. In many, if not in most of cases, it is the permanent agitation of the socialistic leaders who make a living on the small contributions paid by the numerous members of the Laborers' Union organized by them. But under the act against dangerous pursuits of social democracy the German Government proceeds energetically against the instigators, expelling them from places where, as in Berlin, Leipzig, Hamburg, and recently in Spremberg, the state of small siege has been proclaimed. But several points of their complaint deserve, at any rate, our attention. One author, Schippel, speaking on this subject, says:

> A surplus of goods of all kinds beside a surplus of privations—that is the signature of the present time; placed amidst an exuberant plenty of goods, the people long with sorrow for daily bread.

Everywhere productivity or susceptibility of production has grown beyond the increase of population. Our forefathers would have thought it impossible that overproduction, even of breadstuffs, could ever assume such an extent on the whole globe.

Another author, Professor Reuleaux, the well-renowned author of "Kynematik," in a very interesting treatise on the "Machine and the Social Question," points to very noticeable features of the question, some of which are herewith rendered in translation.

He goes on to state that the fact that industry steadily creates a surplus of manufactures is but natural.

The labor question owes its existence to the extraordinary amount of work that can be done by machine with a comparatively very slight consumption of human force.

House or home industry distributed over a country disappears, and concentration of labor, with all tools belonging thereto, ensues on certain places, accumulating masses of people in a condition gradually [illegible] and moral evils. The

In large cities, like Berlin, the lack of clever artisans is already perceptibly felt; but what strikes even more attention is a deplorable diminution of the skill itself of the operatives. Nearly every new invention tries to deprive the remainder of work from laborers still done by hand. Not only are adult workingmen lowered to a position of mere machine helpers, but even this very position is uncertain, as the same could be easily filled by children. This serves, again, to press down wages to a level hardly sufficient to live on.

And while the machine requires the laborer's full and close attention, he has no occasion to apply and exercise his natural gifts in producing works, nor can he, under such circumstances, train and strengthen his physical, intellectual, and moral powers. It is but an act of grace if employers allow him at times to change the kind of service or of the machine to be attended by him.

Reuleaux says:

The two great organizations for horizontal transportation of goods, steam navigation and railroading, exhibit applications of the steam engine which do not entail a suite of detriment to the laborers concerned; both institutions have rendered to society the very greatest services. The bridging of the seas by steamboats, the connection of countries by railroads, the speed of movement taking place on both ways, have entirely transformed the life of nations.

To these institutions of transportation serves a very considerable fraction of the laboring classes, and that under circumstances which, in the principle, are not oppressive, not degrading, not detrimental to health; on the contrary, as a rule, are very favorable. Here there is no labor question, or, if same has been forcibly created, does not possess a like dark background of the condition of workingmen as in other branches.

Like favorable, but at least not unfavorable conditions are found in the line of large machine works, there where locomotive engines, steam engines, railroad cars, ship machines, boilers, vessels, &c., are built. Here, on an average, the workman has a wholesome, though toilsome, not too monotonous and paying employment in the service of the steam engine. The good with which many German manufacturers and managers have come to meet any reasonable wants of their laborers, have been attended with blissful results.

It would now be the task of mechanicians to accede to the question, whether and in what manner, in the province of machinery, could be contributed to a cure of evils which machinery has inflicted upon society additionally to its good gifts.

During the last decennial that kind of working machines and whole trains of such machines have been taken into use, which bring, so to say, the working of an article to be made to a complete and full finish, in which the work of regulation for the most part is no longer done by human hand. The consequence thereof is that for the production of an article of a very high quality only an inferior workingman is required.

On the occasion of the Paris International Exhibition, Professor Reuleaux called attention to this kind of production, calling articles exclusively made by machines, "machinofactures," in contradistinction from "manufactures," *i. e.*, articles made or finished by hand, or where skill of the laborers in treating and using machines is still wanted to a great extent. Then Professor Reuleaux goes on to show that especially there where "machinofactures" are produced, it can be noticed how the laborer is gradually surrendered to capital.

A steam engine acts so much the more favorably, *i. e.*, more economically, as it is larger.

The same has, therefore, a natural tendency of increasing in bulk and efficiency. An industry furnishing a simple product, such as calico, must therefore, of necessity, fall to the capital, as this alone is able to establish those grand plants [illegible] the operation of which admits of prod[illegible] the market.

certain places. It is remarkable that in the domain of weaving or of fibrous stuffs industry generally, the forcible means of strikes was of no good whatever to the strikers. He says:

If we, however, look somewhat more closely at this very question of weaving, we observe that not so much the tool, the loom procurable at lower rates, as the purveyor of force, the steam engine, afforded the preponderance to the capital. Only this latter is able to procure and to run those huge and powerful steam engines of our days, around which the remainder of the establishment or plant, though also wanting capital, is grouped, though not in such a manner that these appendices could not be detached or separated therefrom. From this very cause the weaving trade, though under hunger and sorrow, has succeeded for so long a time to stand the force of the steam engine.

Here we stand evidently in the face of a principle.

The working machine is, in a great many instances, not a dynamical unit, but divisible finds application in one and the same works in many equipollent repetitions, only loosely kept together by the steam engine.

The single working machines have no exorbitant price; on the contrary, the "machinofacture" of machine builders is about to furnish same in an increasing perfection cheaper and cheaper.

Therefore, in cases where these conditions meet, there is a chance to militate against the undesirable preponderance of the capital that is to make force independent of capital.

The small weaver would be saved from the overpressure of capital if we could give him that portion of elementary working power necessary for his loom. Similar attempts could be made with regard to spinners, but much more to the trades of joiners, locksmiths, tinsmiths, brush-makers, pump-makers, and the like.

What these trades want is partly power, partly working machines; but these latter could, even now, be procured by the artisan, as they can be had at really cheap prices, but what he wants is motive power for work at home.

Then they could do their work at home just as well as in the factory, which attracted them, and in utilizing his train of machines in various ways he would retain or regain his skill. Able to compete, the small master would be, in spite of certain advantage which large manufacturers have, for the reason that when working at his home the mutual assistance of the members of his family in general, the moral element, will be added to his well-being as a most efficient factor.

Thus the small manufacturer, with his assistants and apprentices around him, would form a closed working organism, with superior and subordinate forces, resembling the former mode of living of mechanics or artisans. And had all these small manufacturers once become able to compete their quality would quickly improve, as in the same moment also the market for laborers wanted for large manufacturers, *i. e.*, for the capital, would experience an improvement.

The capital would thereby lose the attraction to proceed to manufacture articles which can be easily supplied by small workshops.

Thus the tendency of the capital to concentration could be neutralized.

What engineers and machine works have to do to remedy an essential part of social evils, is the production of cheap, slight working power, or, in other words, small power machines to be operated at small expense.

Several excellent types of such machines can already be found—gas-power machines, hot-air machines, small water-pressure machines, petroleum-gas machines, &c.

Several days ago, one Julius Spiel, Berlin, appeared at this office, in a patent matter for petroleum and gas machines of that kind. He informed me that a large company is constituting to manufacture that type of machine.

Professor Reuleaux's views, above given in substance, remarkably agree with a portion of a lecture delivered by I. C. Bayles, as president of the American Institute of Mining Engineers, at the meeting of Hali-

September, 1885, where he says:

partouts, and other light picture frames, and fine confectionery. These men earn more money and live better than they possibly could as wage-earners in the large manufacturing establishments of the city.

HAND WEAVING *versus* MACHINE WEAVING.

A noteworthy gathering of weavers took place November 1 in the city of Elberfeld. The deplorable state of poverty among the hand weavers, as well on the Lower Rhine as in the valley of the Wüpper, is well known. The introduction of machine weaving has greatly damaged the once thriving business of hand weaving, even to such an extent that the Prussian Government has taken the matter into consideration.

The object of this meeting of the weavers was to take measures which may improve this sad state of affairs.

It was resolved to send a petition to the Reichstag with the following demands:

(1) A taxation to be placed on machine-weaving under international treaties.

(2) Limitation of the same through the fixing of a maximum time for such a day.

(3) Abolition of married women labor, and prohibiti on of labor by children under sixteen years.

(4) Abolition of prison labor and convict labor competition.

It is a notable fact that Mr. Gebhard, a manufacturer and counselor of commerce, representing the Elberfeld Board of Trade, accepted the demands of the weavers, provided they can be made an international regulation.

WAGES.

I am informed that, as a rule, wages have in recent years nearly kept on the same level. Efforts were made by laborers of the building trade, as hereafter will be more fully described, but with doubtful results. I inclose a comparative statement showing the average rates per week paid in Berlin during the years 1882, 1884, 1885, as far as a comparison was practical.

No change has certainly been noticed with regard to unskilled day laborers in Prussia and the Hanseatic cities. I inclose a table showing their daily wages received at different cities, giving the average wages both for adult and young, male and female persons. These statistics are taken from the *Concordia*, published at Mayence, and are stated to be based on official publications.

Able men do not lack employment, and, as already stated in my last annual report, their mode of living has not been worse; on the contrary, the prices of provisions have since again shown a decline.

A NORMAL BUDGET OF A BERLIN LABORER.

According to a computation recently prepared by a social association of Berlin, a workman's family, consisting of husband, wife, and two children, keeping up quite a simple mode of living, and confining themselves to the very greatest necessaries of life, paid per year for provisions 51.9 marks ($123.52); rent, tax, and fuel, 27.7 marks ($65.92); clothing, shoes, and underclothing, 304 marks ($72.35); total, 1,100 marks ($261.82).

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which must mostly be made up by the earnings of the wife, and, if age permits, of children.

For more example, I beg leave to refer to Report No. 110, dated May 25, 1884, of Mr. Brewer, my predecessor, where Berlin household budgets of different kinds of working people have been reported. No striking change in the mode of living has since been noticed.

In a report of the Prussian superintendent over factories at Dusseldorf I found another statement, which I herewith inclose, as to the weekly consumption of a workman's family during winter. He accompanies same with some observations. He says:

If we take into consideration that an operative engaged in coarse works wants for his own person per year at least 3 blouses, each 42 to 47 cents; 3 pairs of trousers, at 71.4 cents, $2.33; 8 to 10 pairs of stockings, at 23.8 cents, $1.90 to $2.38; 3 to 4 pairs of wooden shoes (sabots), at 14 cents, 42 to 56 cents; 1 or 2 pairs of leather shoes, at $2.38 to $7.14; add to these items expenses for taxes, school moneys, school books and the like; 50 pfennigs per week for yarn, &c., for repair; 6 marks per year for fresh bed-straw, it is obvious that a laborer with a large family, living at a larger place, earning on an average 3.50 marks (83 cents) a day, is unable to incur the expenses set forth in the annexed table, but has considerably to reduce them.

He further reports that in many cases operatives in a certain city stated to him that a family of five members, earning wages of about 3.25 marks (77.3 cents) per day, could hardly make both ends meet, but when earning only 3 marks (71.4 cents) this would be impossible without serious privations.

In the country, especially if other favorable conditions permit that a little land is rented and a goat kept, it can be more easily afforded to get tolerably well along with 3 marks of daily wages. But even in this case the limit where privations begin lies far beyond the rate of 2 marks (47.6 cents) a day. I give here two examples:

A locksmith, having a very economical wife, another member of the family earning wages, and five members not yet wage-earners, earned 682 marks ($162) per year.

"Nobody," he declared, "had to suffer hunger, but at times we were short of means for support."

A silk-weaver, whose family consisted, beside himself, of wife and three little children, earned, on an average, about 14.30 marks ($3.40) a week, stated that since his marriage, seven years ago, he has not been able to buy a coat; and though his wife understands housekeeping better than the majority of workmen's wives, he does not get rid of his debts for mere bread.

Of a more considerable influence than usually thought upon the laborers making both ends to meet, is the reliableness, regularity, and promptitude of the wages received.

A workman, formerly earning an average day's wage of 3.25 marks ($1.73), could not get free of debts and satisfy promptly the wants of his family, because of the considerable fluctuations in day's wages; their payments were made every fortnight, while a week's pay was retained, but can now do so very well, having become invalid, and as such deriving his revenue every quarter, earning something besides, the whole income amounting only to 2.85 marks (67.8 cents).

Another report of a superintendent over the manufacturing districts in the province of Brandenburg (Berlin excepted) says as follows:

"Movements for higher wages, called forth by similar movements in Berlin, showed nowhere a permanent result, so that the rate of wages during the last two years has remained on the same scale. But it seems that, considering the efficiency of our industries to compete, wages have obtained, for the present at least, their highest mark.

Best wages received:

Occupation.	Wages per week.	Equivalent in United States currency.

THE DEMANDS OF SOCIAL DEMOCRATIC LABORERS.

In a meeting of unemployed workmen in Berlin, on the 25th of January last, which was attended by about one thousand persons, it was greatly deplored that so many people in Berlin were without work, and that their number was constantly increasing. One of the speakers, Goerchi, a leader of Social Democrats, said some "bourgeois" claimed that the lack of employment was caused by "overproduction." "This word 'overproduction,'" he said, "was an invention of those same bourgeois. The lack of employment," said he, "was caused chiefly by the inability of the people to buy, and this was caused by a production at the mercy of capitalists." The natural consequences of such production must of necessity bring about an ever-recurring crisis and cause perpetual poverty among the masses of workingmen. The tendency of present production is to cheapen all articles of manufacture, and still the people are for the most part unable to buy the absolute necessaries of life. The reduction in the price of manufactures was brought about by reduction of the workingmen's pay. The reduction in the pay for work brought cheap female labor into prominence, to the detriment of male labor.

Female labor was the principal cause of the present lack of employment. For the sake of morality, household regularity, &c., female labor in factories should be prohibited or at least restricted, &c.

Female labor at night is employed in glass-works, mirror factories, in works manufacturing coal-dust, bricks, cement, cast iron, and zinc, porcelain knobs, paper, pasteboard, in wood-grinding, spinning and weaving mills, cloth, flannel works, in worsted spinning, net-work factories, chemical works, sugar refineries, starch works, newspaper press-rooms.

In these branches of industry, where day and night labor is carried on during the whole year, the number of females who work at night is about as follows in the different German states:

German states.	No. of establishments.	No. female employés.
Prussia	191	3,161
Bavaria	6	171
Würtemburg	2	80
Baden	2	40
Brunswick	2	9
Saxe-Meiningen	2	120
Lippe-Detmold	5	51
Saxe-Altenburg	1	20
Bremen	2	8
Hamburg	2	4
Alsace-Lorraine	6	376
Total	222	4,080

In branches of industries where only during a certain time of the year (campaign) business is carried on, but in this case regularly at day and

night, the number of females employed (in works manufacturing beet-sugar, sauerkraut, bricks and tiles, earthenware) were as follows:

In sugar works.

States.	No. of establishments.	No. female employés.
Prussia	236	6,500
Bavaria	1	18
Baden	1	50
Mecklenburg-Schwerin	3	20
Saxe-Weimar	3	54
Brunswick	30	450
Saxe-Meiningen	1	10
Saxe-Coburg-Gotha	1	24
Anhalt	28	6?0
Schwarzburg-Sondershausen	1	28
Schwarzburg-Rudolstadt	1	22
Total	306	7,796

In the following branches of industries female labor is employed at night only in regularly recurring times (season work), while during the remaining part of the year only day work is done: Works manufacturing articles of lead, wood, carving material, carpets, hosiery, umbrellas, toys, in dyeing works, cloth-refining and finishing works, works making ginger-bread, preserves, and pickled meats. There are in Prussia eleven works, employing 515 females; in Reuss Gere three works, employing 200 females.

In the textile and paper industries females work only at night at specially urgent business times.

INSTRUCTION OF FACTORY GIRLS IN MANUAL LABOR, ETC.

Even Duceptians and Leplay denoted ignorance of the wives of workingmen regarding all kind of manual labor and household work as the principal cause of the poverty, misery, and moral depravity which unfortunately is so prevalent among the laboring families. And since the time when these great political economists first called the attention of an enlightened public to this deplorable state of affairs, matters have not improved. It is comparatively rare to find the wife of a workingman able to cook, sew, knit, and mend torn garments, or to do such work as is of vast importance for the welfare of the poorer classes. The consequence is that the laborer who returns from his daily work finds, instead of a palatable meal, some kind of mixture which it is hardly to be expected he will relish.

A further consequence is that instead of cleanliness and order in their dwellings, filth and disorder reign, which create a distaste in the laborer for his home, and he prefers to spend his evenings in taverns and drinking-places.

A remedy against such evils can only be expected when factory girls *a chance* to acquire the knowledge through the necessary in- Such training

wives and mothers. Instructions are given during evenings, so that those who work in factories need not neglect their daily occupation.

Similar establishments have been opened at Worms, in Hanover, and Westphalia.

But success will be possible if they become general. It is not necessary that each employer establish such a school; it would be an easy matter if several employers create them jointly.

It lies in the line of temperance societies to suggest and support these institutions, and ladies' societies will sympathize with their introduction. This opens a vast field for the charity of high-standing ladies.

A well-known political economist is of opinion that the wives of employers can have the greatest influence in elevating the female working-class. The instruction of girls in manual labor and other work of housekeeping would improve also the moral character of inexperienced girls who are at the mercy of so many temptations. But the bliss of such schools would be universal.

BERLIN JOURNEYMEN BUILDERS' FIGHT FOR HIGHER WAGES.

On the 3d of May last a long-threatened strike commenced. On the 9th of May a meeting of at least 4,000 journeymen took place, in which it was resolved that since 161 employers had conceded to their demand of 50 pfennigs (12 cents) per hour, the strike should not be general.

Married journeymen who are at work agreed to pay 1 mark per week and unmarried men 1 mark 50 pfennigs to the strike funds. A resolution that unmarried journeymen who came to Berlin from other cities should leave the city while on a strike was not adopted.

On the other hand, the Berlin Union of Master Builders held on the 5th of May a meeting and adopted a resolution, the substance of which is as follows:

> The masters being convinced that strikes, even if they result in favor of one party or the other, are injurious to both parties, have since the beginning of the year done everything in their power to avert them. They could not enter into any negotiations with the so-called commissioners of wages, because, in the first place, this committee was elected by a comparatively small number of the journeymen at work in Berlin; secondly, because this committee will not permit any contract work whatever; thirdly, because all decisions of the committee are to be approved by the entire number of journeymen, which is utterly impossible; and, lastly, because this committee is influenced to a great extent by persons who are not journeymen nor in any way connected with the leading trades.

To bring about harmony among masters and journeymen, the former deemed it expedient to organize a body of masters and journeymen to consult and arbitrate jointly regarding wages, the number of working hours per day, and all matters of their mutual interest and welfare, &c. This manifesto was adopted unanimously and printed in 15,000 copies to be distributed among the journeymen masons of Berlin. It was further adopted to allow 45 pfennigs (10.7 cents) per hour as wages, which can be increased to 50 pfennigs (12 cents) if the work done should merit such an increase; but that 10 hours should under all circumstances constitute a day's work.

As already stated, the masters carried off the victory in the meaning of the above resolutions.

PROTECTIVE MEASURES IN THE INTEREST OF WORKMEN

Their first report has recently been made. The same deals exclusively with the first point of said bill, viz, the organization of a board intrusted with the supervision over the execution of protective laws for workingmen; such board should officiate in the name of the Empire, under the title *Reichs-Arbeits-Amt* (work office of the Empire), which should have control over the 200,000 working offices to be created throughout the Empire.

According to the bill, as prepared by the Social Democrats, such "Imperial work office" should consist of an imperial council of labor, with the necessary assistants. Women should be eligible as such. But the imperial work office should have only the right to choose the members for the "Imperial labor council" and of the persons presented by so-called *Arbeitskammern* (chambers of laborers).

This chamber was the main object of the Social Democrats, which is to be a sort of "parliament of laborers." It is to have a voice in all questions appertaining to the politic-economical life of the district concerned, co-operating with the work office in the same district. It should be especially empowered to thoroughly investigate the operations of trade and maritime treaties, duties, taxes, wages, provisions, rentals, competition, schools, polytechnical institutions, collections of patterns and designs, condition of dwellings, hygienic matters, &c., of the laboring classes, &c.

The committee of the Reichstag, after careful deliberation, was of opinion that these propositions were impracticable, and so the same has concluded to substitute the following resolutions to be laid before the Reichstag for assent:

(*a*) To request the Imperial chancellor to use his influence towards increasing the number of factory inspectors and to decrease the extent of the present districts of factory inspectors for a more thorough supervision of factories.

(*b*) To request the chancellor to introduce a bill in the Reichstag providing for the obligatory introduction of "trade courts," suggesting that the judges of the same should be elected by an equal number of employers and laborers, in separate election bodies, by a secret ballot.

F. RAINE, *Consul-General.*

UNITED STATES CONSULATE-GENERAL, *Berlin, June* 19, 1886.

EXHIBIT A.—*German emigration via German ports and Belgian port of Antwerp during the years* 1871–1885.

Years.	Ports of departure.				
	German ports and Antwerp.	Bremen.	Hamburg.	Prussian ports, chiefly Stettin.	Antwerp.
1871	74,912	45,658	30,254	.....	.....
1872	120,650	66,919	57,615	.....	1,116
1873	103,638	48,668	51,432	.....	3,598
1874	45,112	17,907	24,093	1,536	1,576
	30,773	12,613	15,826	268	2,066
			[illegible]	202	4,488

EXHIBIT A.—*German emigration via German ports, &c.*—Continued.

Years.	Destination.								
	United States.	British North America.	Mexico and Central America.	West Indies.	Brazil.	Other parts or America.	Africa.	Asia.	Australia and Polynesia.
1871	73,816	9	21	37	920	263	18	11	817
1872	119,780	690	38	61	3,508	387	2	12	1,172
1873	96,641	49	32	28	5,048	496	4	9	1,331
1874	42,492	138	24	83	1,019	418	5	33	900
1875	27,834	38	26	47	1,387	377	1	37	1,026
1876	22,767	11	8	35	3,432	804	54	31	1,226
1877	18,240	11	25	243	1,069	289	750	31	1,306
1878	20,373	89	22	74	1,048	449	394	50	1,718
1879	30,808	44	17	59	1,630	441	23	31	274
1880	103,115	222	19	100	2,119	420	27	36	132
1881	206,189	286	56	58	2,102	762	314	35	745
1882	189,373	383	65	39	1,286	1,101	335	40	1,247
1883	159,894	591	52	32	1,583	1,041	772	50	2,104
1884	138,339	728	39	20	1,253	1,276	230	35	666
1885	98,628	692	39	24	1,713	1,576	294	72	604

Within 15 years, 1871–1885, of every 1,000 emigrants of the countries above named there went to United States, 955.0; British North America, 2.8; Mexico and Central America, 0.3; West Indies, 0.7; Brazil, 20.6; other ports of America, 7.1; Africa, 2.3; Asia, 0.4; Australia and Polynesia, 10.8.

EXHIBIT B.—*Population, marriages, births, deaths, &c., of the German Empire during the years* 1875–1884.

Years.	Average population of the German Empire.	Marriages concluded.	Births.	Deaths.	Excess of births over deaths.	Illegitimate children.	Still-born children.
1875	42,510,000	386,746	1,798,591	1,246,572	552,019	155,573	74,179
1876	43,057,000	366,912	1,831,218	1,207,144	624,074	158,360	73,517
1877	43,608,000	347,810	1,818,550	1,223,692	594,858	157,369	71,157
1878	44,127,000	340,016	1,785,080	1,228,607	556,473	154,629	70,647
1879	44,639,000	335,113	1,806,741	1,214,643	592,098	159,821	70,870
1880	45,093,000	337,342	1,764,096	1,241,126	522,970	158,709	67,921
1881	45,393,000	338,909	1,748,686	1,222,928	525,758	158,454	66,537
1882	45,620,000	350,457	1,769,501	1,244,006	525,495	164,457	67,153
1883	45,862,000	352,999	1,749,874	1,256,177	493,697	161,294	66,175
1884	46,137,000	362,596	1,793,942	1,271,859	522,083	170,688	68,359
Average	44,605,000	351,890	1,786,628	1,235,675	550,953	159,935	69,652

EXHIBIT C.—*Number of marriages, births, deaths, and illegitimate children per* 1,000 *inhabitants in the years* 1875–1884.

Years.	Marriages.	Births.	Deaths.	Excess of births over deaths.	Illegitimate children per 100 births.	Still-born children per 100 births.
1875	9.10	42.31	29.32	12.99	8.65	4.12
1876	8.52	42.53	28.03	14.50	8.65	4.01
1877	7.98	41.70	28.06	13.64	8.65	3.91
1878	7.71	40.55	27.84	12.61	8.66	3.96
1879	7.51	40.47	27.21	13.26	8.85	3.92
1880	7.48	39.12	27.52	11.60	9.00	
1881	7.47	38.53				
1882						

EXHIBIT D.—*Comparative statement showing the average rates of wages per week paid in Berlin during the years* 1882, 1884, 1885.

[Taken from publications of the statistical bureau of the city of Berlin. Denominations of occupation change every year, therefore comparison difficult.]

Occupation.	Average wages per week.			Average work-time per day.
	1882.	1884.	1885.	
				Hours.
Stone-cutters:	$6 42	$5 42	$5 23 to 7 14	10
Journeymen	7 14	6 42		12
Journeymen in factories	4 99	5 71	5 95	12
Marble-cutters	3 92	4 28	4 28	12
Marble-grinders	3 57	3 80	3 57	12
Marble-workmen	----------	4 28	----------	12
Mill-workers, laborers	----------	4 64	----------	----------
Crockeryware	*4 76	*4 64	*4 76	13
Turners	4 28	147	4 28	13
Workmen	*1 90	123	2 14	13
Lads	----------	5 71	----------	13
Molders	----------	5 00	4 99	13
Model-joiners	----------	5 35	5 43	13
Firemen	----------	3 82	3 15	13
Coachmen	3 57	3 37	3 20	13
Laborers	4 28	5 00	5 71	12
Potters:		135	4 28	12
Journeymen	--- ----------			
Laborers		*5 35	§7 14	12
Porcelain:	----------	5 71	----------	12
Turners	----------	3 57	§7 14	12
Painters	----------	3 57	----------	12
Burners	----------	1 42	1 60	12
Grinders	----------			
Apprentices		6 06	----------	12
In porcelain factories:	----------	6 06	----------	12
Founders	----------	4 76	----------	12
Molders	----------	3 37	----------	12
Burners	----------			
Casters	4 76	4 28	4 28	11
Goldsmiths:		2 85	2 85	11
Journeymen	----------	1 07	1 90	11
Female laborers	----------			
Apprentices		5 00	4 28	10
In silver goods factories:	5 71	5 71	4 52	----------
Pressers	5 71	5 00	4 28	----------
Rollers	----------	*5 56	*5 71	10
Luters	----------	2 38	2 14	10
Journeymen silver workers	2 38		1 19	----------
Polishers, female	1 07	----------		
Apprentices		*5 71	*6 42	*11
In German silver factories:	*4 28	5 71	*7 80	11
Girdlers	----------	5 71	*7 80	11
Grinders, workmen	----------	7 14	----------	11
Locksmiths	----------	2 85	----------	11
Pressers	----------	8 56	*4 28	11
Cutters, female	----------	*4 04	*2 85	----------
Polishers, male	----------	1 07	1 42	----------
Polishers, female	----------	4 28	3 20	----------
Apprentices	----------			
Workmen		4 28	4 28	12
Girdlers:	4 28	1 20	----------	12
Journeymen	----------	4 28	4 76	12
Apprentices	4 28			
Tin founders, journeymen		4 76	4 28	12
Braziers:	3 57	4 76	----------	12
Journeymen	3 57	4 28	----------	12
Founders	3 21	95	1 19	12
Turners	0 95	3 35	2 85	12
Apprentices	2 38			
Workmen		5 71	----------	13
Tube works:				13

EXHIBIT D.—*Comparative statement showing the average rates of wages, &c.*—Continued.

Occupation.	Average wages per week.			Average work-time per day.
	1882.	1884.	1885.	
In metal goods factories:				*Hours.*
Turners	.....	$5 00	$4 07	10
Locksmiths	.....	4 28	4 76	10
Coppersmiths	.....	5 00	5 71	10
Painters	.....	5 00	4 99	10
Girdlers	.....	5 95	5 95	10
Polishers	.....	4 76	4 99	10
Operatives, male	$3 57	3 21	4 28	10
Operatives, female	2 14	2 38	.....	10
Apprentices	.....	95	1 42	10
Girdlers, female	.....	2 85	2 38	10
In foundries of articles of art:				
Founders, molders	.....	3 57	5 71	9
Workmen	.....	2 61	2 38	9
Needle-makers, journeymen	3 57	3 57	4 15	12
File-cutter, journeymen	$2 38 to 2 85	4 28	3 57	12
Locksmiths, journeymen	3 57	4 28	4 28	10
Blacksmiths, journeymen	3 57	3 92	4 04	12
Toolsmiths	3 57	3 57	4 28	13
Cutlers	.....	4 76	4 28	13
Bladesmiths	4 28	3 57	4 28	12
Steel-pen workers:				
Journeymen	.....	5 71	.....	11
Girls	.....	1 78	.....	11
Nailsmiths, journeymen	.....	3 57	3 57	.....
In engine works:				
Mechanics	*5 71	5 45	4 28	11½
Blacksmiths	*7 37 / †5 47	4 76	4 76	11½
Joiners	5 71	4 53	5 95	11½
Molders	5 71	4 53	4 76	11½
Workmen	4 04	3 72	3 80	11½
In sewing-machine factories:				
Locksmiths	.....	*5 47	*5 71	11½
Joiners	.....	*5 23	*5 71	11½
Workmen, male	.....	*4 28	*4 28	11½
Workmen, female	.....	*3 33	*2 50	11½
Cartwrights, journeymen	2 57	3 57	4 04	11½
Telegraph makers, journeymen	4 61	4 61	4 61	11½
Mechanicians, journeymen	4 28	4 28	4 28	12
Surgical-instrument makers	4 28 to 4 99	4 76	4 99	9½
Watchmakers, journeymen	4 28	4 28	4 28	12
In lamp factories:				
Braziers	*4 28 to 7 14	5 17	4 80	12½
Girdlers	*4 76 to 7 14	5 00	5 23	12½
Turners	4 76 to 8 33	5 71	4 99	12½
In a chemical factory:				
Foremen	.....	5 95	4 76	12
Laborers	3 57	3 54	3 57	12
Lads	.....	2 38	2 38	12
Women and girls	.....	1 90	$1 60 to 2 85	12
Workers under sixteen years	.....	1 42	1 60	12
In an aniline color factory:				
Foremen	.....	5 71	6 50	12
Artisans	.....	5 71	5 10	12
Laborers	.....	3 14	3 86	12
Operatives	.....	3 92	.....	12
Soap-makers	4 28	4 76	4 28	13
Day laborers	.....	3 57	3 57	13
Ethereal oils factory, operatives	.....	4 28	4 28	12
Asphalters	.....	5 95	6 42	10
Roofers	.....	5 23	5 47	10
In silk-goods factories (operatives):				
Male	.....	3 92	3 80	13
Female	.....	2 14	2 25	11
In wool mills:				
Weavers	*3 57	*3 45	*6 18	10
Shearers	.....	5 71	*5 71	10
Winders, female	*2 01	*2 25		
Hand-workers, female				
Machine-workers, female				

EXHIBIT D.—*Comparative statement showing the average rates of wages, &c.*—Continued.

Occupation.	Average wages per week.			Average work-time per day.
	1882.	1884.	1885.	
				Hours.
Carpet-weavers:			$4 00	12
Operatives	$4 99	$4 28		12
Workers, female	1 90	1 90		12
Weavers		*7 14	*4 28 to 7 14	12
Cloth-makers, journeymen	2 38	2 85	*3 37	12
In a Berlin velveteen factory (master)			7 85	
Operatives				12
Apprentices (lads)	3 57	3 21		12
Women		2 49	2 85	12
Girls		2 85	*2 61	12
In refining works (dressing fabrics):	1 60	1 90 to 2 14	*2 14	12
Masters				
Laborers, male	7 14	5 59	7 14	13
Laborers, female	3 57	2 85	3 57	13
Fullers	1 60 to 1 90	1 90	2 85 to 4 04	13
Carders, female		4 28	4 28	13
Silk button and trimming makers:		4 28	4 10	13
Foremen	7 14			
Manager, female		7 14	8 50	11
Journeymen	4 99	2 85	2 85	11
Girls	1 90	5 00	4 28	11
Rope-makers:		1 90	1 90	11
Journeymen	3 57			
Lads		3 57	3 57 to 4 28	12
Statuary (pasteboard) factories:		1 78	1 72	12
Foremen				
Gilders		7 49		13
Joiners		5 71		13
Bookbinders		5 00		13
Laborers	3 57	3 92	4 00	13
Gilders, females		3 28	3 90	13
Tanners:		2 38		13
Journeymen				
Workmen	4 28	4 64	4 28	13
Bookbinders:	3 57	2 14	3 80	13
Journeymen				
Girls	3 57	4 04	3 57	12
Gilders, male	2 38	1 90	1 90	12
Gilders, female		4 76	3 80 to 4 76	12
Harness makers		2 14		12
Wagoners		3 57	4 28	10
Upholsterers:	3 57	4 04	4 60	10
Journeymen				
Women		4 76	4 99	9½
Joiners:	4 28	2 38	2 85	9½
For buildings	*3 57			
For furniture	3 80 to 4 28	5 00	4 99	13
Coopers, journeymen		*6 42	*4 28	13
Basket-makers, journeymen	3 57	4 28	4 28	10
Comb-makers, journeymen	4 28	2 85	2 85	12
Varnishers, journeymen		3 57	3 57	13
Steam millers:	5 71	3 57	4 28	13
Firemen	5 59			
Locksmiths	4 52	5 83	5 50	12
Laborers		5 59	5 80	12
Bakers:		4 56	4 99	12
First journeyman †	2 38			
Second journeyman †		2 85	3 33	13
Third journeyman †	2 14	2 14	2 61	13
Butchers, journeymen †	4 99 to 7 50	1 78	1 90	13
Brewers	4 99 to 6 06	2 14	2 14 to 2 85	16 to 17
Coopers		‡23 80	5 30	12
Cigar-makers:	3 57		5 30	12
Male	1 78	3 57		
Female	4 28	1 78	3 57 to 4 04	12
		‡27 37	1 78	12
			*28 56	
			3 57	10 to 11

EXHIBIT D.—*Comparative statement showing the average rates of wages, &c.*—Continued.

Occupation.	Average wages per week.			Average work-time per day.
	1882.	1884.	1885.	
				Hours.
Hair-dressers, journeymen	*$1 70	*$1 10	*$1 90	.....
Masons, journeymen	4 28 to 4 76	3 99	5 50	9½
Carpenters, journeymen	4 28	4 21	4 80	9
Glaziers, journeymen	4 28	4 28	3 80 to 4 28	10
Painters, journeymen	4 99	4 28	4 99 to 5 71	9
Roofers, journeymen	5 40	5 71	4 99 to 5 71	10
Chimney-sweepers, journeymen	.....	5 16	5 47	10
Type-founders, journeymen	4 28	4 28	4 28	10
Common day laborers:				
Field	.....	2 85	2 85 to 3 57	10
Factories	.....	3 21		10
Sculptors:				
Plasterers	5 71	5 23	3 80 to 4 04	10
In wood	.....	4 76	3 57	10
In gypsum	.....	5 23	3 57 to 4 76	10
Molders:				
Journeymen	.....	3 57	3 80	12
Apprentices	.....	83	83	12
Printing-office of German Empire:				
Setters	5 95	6 75	5 71 to 7 00	10
Copper-plate printers	5 95	6 28	6 20 to 8 00	10
Lithographers	7 14	6 02	6 66	10
Photographers	7 14	7 59	6 66	7 to 9
Engravers	7 14	6 87	6 66	7 to 9

*With board.

EXHIBIT E.—*Daily wages of day laborers (unskilled) in Prussia in* 1885.

Province.	City.	Number of inhabitants.	Average wages.			
			Adults.		Juveniles.	
			Male.	Female.	Male.	Female.
			Marks.	*Marks.*	*Marks.*	*Marks.*
East Prussia	Passenheim	1,967	1.00	0.50	.....	.....
	Nordenburg	2,515	1.00	0.50	.....	.....
	Willenberg	2,577	1,00	0.50	.....	.....
	Landsberg	2,751	1.00	0.50	.....	.....
	Pillau	3,225	2.00	1.00	.....	.....
	Mehloack	3,760	1.00	0.50	.....	.....
	Justerburg	18,745	1.20	0.80	.....	.....
	Tilsit	21,400	1.20	0.80	0.50	0.40
	Koenigsberg	140,909	1.70	0.70	1.25	0.40
	Average	.....	1.23	0.64	0.87	0.40
West Prussia	Vandsburg	1,661	1.62	0.85	.....	.....
	Loebau	4,857	0.80	0.40	.....	.....
	Thorn	20,617	1.20	0.80	0.60	0.60
	Elbing	35,842	1.50	1.00	0.65	0.55
	Danzig	108,551	1.80	1.25	0.65	0.55
	Average	.....	1.38	0.86	0.63	0.57
Brandenburg	Neudamm	3,775	1.40	1.00	.....	.....
	Baerwalde	3,901	1.40	1.00	.....	.....
	Cüstrin	14,069	1.40	1.00	.....	.....
	Landsberg a. W	23,612	1.20	0.80	0.60	0.60
	Cottbus	25,584	1.20	0.80	0.60	0.60
	Guben	25,840	1.20	0.80		
	Brandenburg a. H					

EXHIBIT E.—*Daily wages of day laborers (unskilled) in Prussia in* 1885—Continued.

Province.	City.	Number of inhabitants.	Average wages.			
			Adults.		Juveniles.	
			Male.	Female.	Male.	Female.
			Marks.	*Marks.*	*Marks.*	*Marks.*
Pomerania	Grefswald	19,924	1.50	1.00	.....	.....
	Stolp	21,591	1.60	1.10	1.00	0.65
	Stargard	21,816	1.20	1.70	0.50	0.40
	Stralsund	29,481	1.50	1.00	0.60	0.40
	Stettin	91,756	2.00	1.00	1.00	0.60
	Average	.....	1.56	0.96	0.77	0.51
Posen	Nakel	6,035	1.50	1.00	.....	.....
	Inourazlaw	11,558	1.50	1.00	.....	.....
	Schneidemuehl	11,610	1.50	1.00	.....	.....
	Bromberg	34,044	1.50	1.00	1.00	0.75
	Posen	65,713	1.60	1.00	0.75	0.50
	Average	.....	1.52	1.00	0.87	0.62
Silesia	Georgenberg	1,259	1.20	0.80	.....	.....
	Tarnowitz	7,956	1.20	0.80	.....	.....
	Kattowitz	12,623	1.20	0.80	.....	.....
	Neisse	20,507	1.10	0.80	0.70	0.70
	Beuthen	22,811	1.20	0.80	0.60	0.60
	Schweidnitz	22,202	1.30	0.85	0.70	0.50
	Koenigshütte	27,522	1.20	0.80	0.60	0.60
	Liegnitz	37,154	1.50	1.00	0.60	0.60
	Goerlitz	50,307	1.60	1.00	0.80	0.60
	Breslau	272,912	1.60	1.00	0.80	0.60
	Average	.....	1.31	0.86	0.69	0.60
Saxony	Langensalza	10,538	1.60	0.90	.....	.....
	Muelhausen i. Th	23,478	1.60	0.90	0.70	0.70
	Nordhausen	26,198	1.20	0.80	0.60	0.60
	Newstadt-Magdeburg	27,090	2.00	1.20	1.00	0.75
	Halberstadt	31,260	2.00	1.20	0.90	0.80
	Erfurt	53,254	1.60	0.90	0.70	0.70
	Halle	71,484	2.10	1.40	1.20	1.00
	Magdeburg	97,539	2.00	1.40	1.20	1.60
	Average	.....	1.76	1.09	0.90	0.79
Schleswig-Holstein	Flensburg	30,956	2.00	0.80	1.30	0.60
	Kiel	43,594	2.70	1.00	1.60	0.80
	Altona	91,047	2.50	1.00	1.80	1.00
	Average	.....	2.40	0.93	1.57	0.80
Hanover	Meppen	3,417	2.00	1.50	.....	.....
	Harburg	19,071	2.40	1.50	.....	.....
	Osnabrueck	22,384	1.80	1.20	1.10	0.80
	Hildesheim	32,812	1.80	1.25	1.10	1.00
	Hanover	122,843	2.00	1.50	1.20	1.00
	Average	.....	1.92	1.32	1.10	0.85
Westphalia	Hiddingsel	589	1.30	1.00	.....	.....
	Buldern	1,145	1.30	1.00	.....	.....
	Boryenstreich	1,535	1.00	0.60	.....	.....
	Recklinghausen	7,296	2.30	1.60	.....	.....
	Hamm	20,783	1.75	1.40	1.20	0.80
	Witten	21,554	2.20	1.50	1.10	0.90
	Hagen	26,295	2.10	1.40	1.20	1.00
	Bielefeld	30,679	1.80	1.40	1.20	0.80
	Bochum	33,445	2.20	1.50	1.10	0.90
		40,444	2.25	1.50	1.00	0.75
				1.40	1.20	0.80

EXHIBIT E.—*Daily wages of day laborers (unskilled) in Prussia in* 1885—Continued.

Province.	City.	Number of inhabitants.	Average wages.			
			Adults.		Juveniles.	
			Male.	Female.	Male.	Female.
			Marks.	*Marks.*	*Marks.*	*Marks.*
Rhenish Prussia	Prüm	2,176	2.00	1.50	.....	.....
	Mühlheim a. R	20,420	2.50	1.50	1.50	1.00
	Vierzen	20,997	2.00	1.50	1.00	0.80
	Wesel	20,593	2.00	1.40	1.00	0.80
	Mühlheim a. d. Rhur	22,146	2.50	1.50	1.50	1.00
	Trier	24,200	1.60	1.35	0.70	0.50
	Remschid	30.029	2.20	1.50	1.00	0.80
	Coblenz	30,567	1.80	1.20	1.00	0.40
	Bonn	31,514	2.00	1.20	1.00	0.80
	M. Gladbach	37,387	2.00	1.50	1 00	0.80
	Duisberg	41,242	2.40	1.50	1.20	0.80
	Essen	56,957	2.40	1.50	1.20	0.80
	Crefeld	73,872	2.40	1.50	1.20	1.00
	Aachen	85,551	2.00	1.20	1.00	0.70
	Elberfeld	93,538	2.40	1.50	1.00	0.80
	Düsseldorf	95,459	2.40	1.50	1.20	0.80
	Barmen	95,941	2.40	1.50	1.00	0.80
	Cologne	144,751	2.50	1.50	1.50	0.80
	Average	.....	.....	.....	.....	.....
Hohenzollern	Hechingen	3,687	2.00	1.20	.....	.....
The Hanse towns	Bremen	112,114	2.50	2.00	1.25	1.25
	Hamburg	410,127	2.50	1.85	1.00	1.00
	Average	.....	.....	.....	.....	.....
	Prussian states	.....	1.76	1.09	0.97	0.69
	Hanse towns	.....	2.50	1.92	0.98	0.72

EXHIBIT F.—*Weekly consumption of a workman's family in winter.*

Victuals, fuel, light, and lodging.	Family living in the country (parents and 3 children of between 7 and 17 years of age).			Family living in a larger city (parents and 6 children of between 3 and 17 years of age).		
	Quantity.	Cost.		Quantity.	Cost.	
		Marks.	Equivalent in United States currency.		Marks.	Equivalent in United States currency.
	Kilogram			*Kilogram*		
Potatoes	15.00	1.20	$0 28½	40.00	2.80	$0 66⅔
Vegetables					1.40	33 3/16
Rye bread	16.00	3.00	71⅔	20.00	3.25	77
Wheat bread		.90	21		.60	14
Beef (twice a week)	1.00	1.00	23½	.50	.60	14
Soup ingredients					.16	3½
Butter	.87½	2.30	54½	1.00	3.15	74 2/16
Lard and grease of beef	.25	.35	8 3/16	.70	1.05	24 2/16
Bacon	1.00	1.40	30			
Rape-seed oil	.75	.53	12½	.50	.30	7
Eggs, 6 pieces		.35	8			
Rye flour	1.00	.36	8½	.50	.18	4
Wheat flour	1.00	.40	9½			
Peeled barley	.50	.13	3	.50	.16	3½
Rice	.50	.25	5 6/16			
Peas, beans, lentils	1.00	.40	9½	2.00	.80	19
Salt	.50	.12	2 8/16	.70	.21	4 9/16
Spice		.15	3½		.06	1 4/16
Onions	1.00	.08	1 9/16	.50	.08	1 9/16
Beer vinegar	.37½	1.28	30 2/16	1.00	.08	1 9/16
Coffee	.25	.10	2		1.05	24 9/16
Parched barley	.25	.20	4½			
Sugar	.12½	.18	4 1/16			
Crushed candy	.25	.25	5 6/16			
Currants		.60	14	.25	.50	11 9/16
Tobacco	50.00	.80	19	35.00	.98	23
Coal and matches	2.00	.55	13	1.75	.35	8
Petroleum						
Soap:				.50	.20	4½
Black	.75	.35	8	.70	.56	13 3/16
White	.25	.20	4		.06	1 2/16
Soda		.05	1		3.50	83 3/16
Rental	(*)	3.00	71	(†)		
Total		20.48	4 87		22.08	5 25

* Three to four rooms. † Three rooms.

COLOGNE.

REPORT OF CONSUL WAMER, OF COLOGNE.

Before I proceed to reply more directly to the interrogatories with reference to statistics and other information asked for in Department of State circular dated April 27, 1886, I desire to show the view taken of this matter in Germany, inasmuch as the discussion of this question here at the present day is considered of the utmost importance, more especially since the colonial policy of Germany has been inaugurated.

One of the most difficult problems which the German Government has had to deal with in latter years has been the question of emigra- [illegible] devise ways and means

During this interval from 1871 to 1885 the emigration of Germans from German ports, Antwerp, and Havre, not reckoning those who emigrated by way of Holland and Great Britain, reached 1,478,887, or more than 20 per cent. of the increase of the population. It is estimated that the emigration during the last sixty years amounted to 4,500,000. Besides the loss of so much body and mental strength, it is computed that in respect to education alone a capital of about 25 milliards has been lost to the nation.

In the year 1881 the emigration reached its climax, amounting to 221,304, or about double the number of the preceding year. This state of things created alarm, and the matter was repeatedly referred to in the German Reichstag. The Government, having hitherto been fencing rather than dealing practically with the question, found it then necessary to devote special attention to the matter. Several remedial measures were proposed, but they failed to overcome the evil.

COLONIAL POLICY.

Under such circumstances the Government resolved to turn the efflux, if possible, into other and new channels, and from that date a colonial policy came into existence. The results of this policy are sufficiently known, but it cannot be said that amongst emigrants these colonization schemes ever found much favor, as the new German settlements offered but a poor trade and altogether few advantages and inducements. Nevertheless associations have been formed in Germany for advocating these colonial projects, their principal object being to divert the flow of emigration from the United States, and to direct the attention of emigrants to other countries, where, as it was hoped, they would do better and need not lose their nationality. One of these societies, the *Kolonial Verein*, held recently an important meeting in Karlsruhe, on which occasion one of the speakers made the following remarks:

> It is not to be denied that the 8,000,000 of Germans now living in the United States, consisting of emigrants of two generations, will be able to effect much for the future development of the Union, but still it is true as well that the chances of prospering in the United States are not so favorable as they were twenty or thirty years ago. In the same measure as the chances become poorer we ought, for sake of humanity and policy, devote our labors toward finding for the German emigrant other countries, where he will not only meet with a kind reception and with fair means of existence, but also be able to retain his German nationality, and likewise the German language and his German habits. By such means he keeps up his relationship with Germany. Look, for instance how those three Brazilian provinces, Rio Grande do Sul, Parana, and Santa Catharina, where about 20,000 Germans are living, have developed themselves. These Germans have not only retained their language and habits, their church and school, but the trade is principally in the hands of these Germans, and besides they exercise an important political influence over the provincial government. The emigration to South America, as compared with North America, is so far insignificant. Much, however, is to be said in favor of emigration to South America, and altogether the chances of prosperity are now greater, especially in South Brazil, than in North America.

These societies may and do exercise some influence, but for the present at least the probability is but slight that the majority of emigrants will prefer other countries to the United States. The settled and comfortable homes of so many Germans in the United States, and the free institutions of that country, form an attraction too powerful for the German emigrant to resist

STATISTICS OF EMIGRATION.

The following statistics show the number of emigrants that left Germany, via German ports and Antwerp, during the period from 1871 to 1885, inclusive, and to what country:

TABLE A.

Years.	Total ascertained number of emigrants.	Port of departure.			
		Bremen.	Hamburg.	Stettin.	Antwerp.
1871	75,912	45,658	30,254	.....	.....
1872	125,650	66,919	57,615	.....	1,116
1873	103,638	48,608	51,432	.....	3,598
1874	45,112	17,907	24,093	1,536	1,576
1875	30,773	12,613	15,826	268	2,066
1876	28,368	10,972	12,706	202	4,488
1877	21,694	9,328	10,725	75	1,836
1878	24,217	11,329	11,827	85	976
1879	33,327	15,828	13,165	245	4,089
1880	106,190	51,627	42,787	552	11,224
1881	210,547	98,510	84,425	1,434	26,178
1882	193,869	96,116	71,164	1,936	24,653
1883	166,119	87,739	55,666	546	22,168
1884	143,586	75,776	49,985	750	17,075
1885	103,642	52,328	35,335	1,237	14,742
Total	1,412,914	701,258	567,005	8,869	135,785

Years.	Destination.								
	United States.	British North America.	Mexico and Central America.	West Indies.	Brazil.	Other ports of America.	Africa.	Asia.	Australia.
1871	73,816	9	21	37	920	263	18	11	817
1872	119,780	690	38	61	3,508	387	2	12	1,172
1873	96,641	49	32	28	5,048	496	4	9	1,331
1874	42,492	138	24	83	1,019	418	5	33	900
1875	27,834	38	26	47	1,387	377	1	37	1,026
1876	22,767	11	8	35	3,432	804	54	31	1,226
1877	18,240	11	25	243	1,069	289	750	31	1,306
1878	20,373	89	22	74	1,048	449	394	50	1,718
1879	30,808	44	17	59	1,630	441	23	31	274
1880	103,115	222	19	100	2,119	420	27	36	132
1881	206,189	286	56	58	2,102	762	314	35	745
1882	189,373	383	65	39	1,286	1,101	335	40	1,247
1883	159,894	591	52	32	1,583	1,041	772	50	2,104
1884	139,339	728	39	20	1,253	1,276	230	35	666
1885	98,628	692	39	24	1,713	1,576	294	72	604
Total	1,349,289	3,981	483	940	29,117	10,100	3,223	513	15,268

Of 1,000 emigrants, 955 went to United States; 2.8 to British North America; 0.3 to Mexico and Central America; 0.7 to West Indies; 20.6 to Brazil; 7.1 to other ports of America; 2.3 to Africa; 0.4 to Asia; and 10.8 to Australia.

The foregoing official figures do not include the German emigrants who embarked via Havre, Holland, and Great Britain. Of the two latter I could find no official report. As to Havre, the following are the official numbers of German emigrants from 1871 to 1885:

Years.	No.	Years.	No.

By adding the number of emigrants who went by Havre in the fifteen years to the number who emigrated during the same period by way of German ports and Antwerp, as given in Table A, the total is increased to 1,478,887.

To every 100,000 inhabitants the different provinces of Germany furnished the following quota:

TABLE B.

Provinces.	1873.	1880.	1885.	Provinces.	1873.	1880.	1885.
East Prussia	492	56	92	Saxony (Kingdom)	96	139	92
West Prussia		857	720	Wurtemberg	254	444	258
Brandenburg with Berlin	125	134	169	Baden	297	311	220
Pommerania	959	691	762	Hesse	235	326	259
Posen	702	601	586	Mecklenburg	1,085	241	393
Silesia	57	70	71	Oldenburg	363	299	402
Saxony	72	63	87	Brunswick	93	103	76
Schleswig-Holstein	596	569	561	Thuringia	143	118	118
Hanover	338	350	421	Anhalt	64	55	45
Westphalia	79	153	120	Waldeck	166	242	354
Hesse-Nassau	253	268	231	Lippe	113	133	242
Rhineland	60	95	87	Lubeck	163	149	208
Hohenzollern	156	231	156	Bremen	408	560	589
Bavaria	184	183	166	Hamburg	331	339	368
Palatinate	281	263	307	Alsace-Lorraine	30	17	48

The following table represents the number of German emigrants, according to sex, from the different states and provinces by way of German ports and Antwerp during the year 1885, as also the respective population on the 1st of December, 1885:

TABLE C.

German states and provinces.	Number of emigrants during the year.			Emigrated to the United States.			German population.
	Males.	Females.	Total.	Males.	Females.	Total.	
East Prussia	941	846	1,787	907	829	1,736	1,958,858
West Prussia	4,916	4,905	9,821	4,657	4,694	9,351	1,407,960
Brandenburg with Berlin	3,301	2,851	6,152	2,818	2,550	5,368	3,657,892
Pommerania	5,646	5,744	11,390	5,465	5,607	11,072	1,505,795
Posen	4,923	4,861	9,784	4,840	4,799	9,639	1,715,024
Silesia	1,601	1,268	2,869	1,441	1,151	2,592	4,111,399
Saxony	1,211	853	2,064	1,029	749	1,778	2,427,979
Schleswig-Holstein	3,400	2,906	6,306	2,998	2,664	5,662	1,150,233
Hanover	4,915	4,130	9,045	4,760	4,044	8,804	2,172,294
Westphalia	1,467	1,073	2,540	1,414	1,032	2,446	2,202,726
Hesse-Nassau	1,980	1,686	3,666	1,901	1,652	3,553	1,592,162
Rhineland	2,254	1,449	3,703	2,130	1,413	3,543	4,344,802
Hohenzollern	51	51	102	51	50	101	66,709
Bavaria	5,591	4,348	9,939	5,515	4,318	9,833	5,416,180
Saxony (Kingdom)	1,655	1,230	2,885	1,482	1,173	2,655	3,179,168
Wurtemberg	2,734	2,370	5,104	2,660	2,335	4,995	1,994,849
Baden	1,935	1,541	3,476	1,896	1,514	3,410	1,600,839
Hessen	1,362	1,141	2,503	1,350	1,139	2,489	956,170
Mecklenburg-Schwerin	1,211	1,010	2,221	1,173	992	2,165	575,140
Saxony-Weimar	229	195	424	210	186	396	313,668
Mecklenburg Strelitz	205	186	391	203	186	389	98,371
Oldenburg	776	619	1,395	741	606	1,347	341,250
Brunswick	166	113	279	148	104	252	372,580
Saxony-Meiningen	161	128	289	153	124	277	214,697
Saxony-Altenburg	47	30	77	42	27	69	161,129
Saxony-Coburg-Gotha	143	134	277	135	131	266	198,717
Anhalt	82	31	113	73	30	103	247,603
Schwarzburg-Sondershausen	44	33	77	44	33	77	73,623
Schwarzburg-Rudolstadt	78	67	145	74	64	138	83,939
Waldeck	108	89	197	106	89	195	56,565
Reuss, elder branch	27	17	44	23	17	40	53,787
Reuss, younger branch	55	43	98	52	42	94	112,118
Schaumburg-Lippe	45	30	75				
Lippe							
Lubeck							

It will be seen by Table A that the total number of emigrants who embarked from the ports of Bremen, Hamburg, Stettin, and Antwerp, amounted to 103,642 during the year 1885. Of this number the age ranges as follows:

Age.	Males.	Females.	Total.
Under one year	2,243	2,322	4,565
From one to six years	4,945	4,765	9,710
From six to ten years	4,772	4,563	9,335
From ten to fourteen years	2,263	2,028	4,291
From fourteen to twenty-one years	10,733	10,322	21,055
From twenty-one to thirty years	16,068	11,710	27,778
From thirty to forty years	7,504	5,364	12,868
From forty to fifty years	3,700	3,191	6,891
From fifty to sixty years	2,203	2,213	4,416
From sixty to seventy years	1,101	1,112	2,213
Above seventy years	213	175	388
Age not ascertained	82	50	132
Total	55,827	47,815	103,642

CLASSES WHICH SUPPLY THE GREATEST NUMBER OF EMIGRANTS.

The greatest number of emigrants is supplied by the agricultural class from comparatively thinly populated districts where they have been able to save a little money. In referring to Table C, it will be seen that Pommerania, Posen, West Prussia, Hanover, and Schleswig-Holstein, principally agricultural sections, furnish the largest contingent of emigrants, while the industrial districts of Westphalia, Rhineland, Silesia, and Saxony, with large populations, furnish less.

CAUSES OF THE EMIGRATION.

The chief causes of the emigration are not to be attributed either to compulsory military service or to onerous taxation, strikes, or overpopulation. There are, no doubt, some instances where the compulsory military service has led to emigration, but generally speaking the military service is not objected to, but even liked by the majority of high-spirited young men. As a rule they take a pride in the service and are fond of military appearance. According to the opinion which I have formed, I believe that the service, severe as it may be at times, does the young men of this country good; it gives them manly strength, teaches them to be orderly and careful, and instills in them a respect for authority. The cause of emigration is not to be found in a love for adventure, but from a desire of the emigrant to purchase out of his small savings land on more favorable terms than he can do at home, and thus become owner of property—a position which he can very rarely ever hope to attain in his country. The percentage of emigrants from the industrial laboring classes is small, which is no doubt to be attributed to their not being able to save out of their slim earnings a sufficient amount to allow them to emigrate. While they do not earn more

attention) Professor Eggert* made the following remarks on the subject.

From the earliest ages the Germans have taken to wandering, partly because their own country did not offer them sufficient means of existence, and partly from a desire to become owners of land. This tendency exists to the present day. The agricultural interest has suffered more than that of the trade industries, and consequently the German, weary of waiting for better days, collects his savings and then leaves his country sadly but hopefully in order to seek his fortune in foreign lands, and especially to realize the ideal wish of his life—to become owner of land. These have been and continue to be the reasons which force Germans to leave their country, and in reconciling ourselves to this situation it is best to do all we can to reduce the evil as far as possible, and to turn the matter to some practical good both for Germany and for those who take leave of Germany.

Professor Eggert suggests, in order to prevent emigration, the utilization of the woods and forests, which constitute a fourth part of the area of Germany, by turning them into arable land, meadows, and fields; but according to his own showing such a transformation would take a great number of years, and according to his calculation during that time at least nine-tenths of about the present number would be obliged to emigrate. As this plan would hardly recommend itself, he advises intending emigrants to turn their attention to the German colonies for two reasons; first, land would eventually be obtained for very little outlay without the necessity of denaturalization; and, secondly, such colonization would be useful to the German export trade, consequently a direct benefit to Germany.

SOCIAL CONDITION OF THE PEOPLE.

In my report sent with dispatch dated May 21, 1886,† I gave a fair sketch of the social condition and manner of living of the laboring classes. With respect to the latter, marriage, although contracted sometimes too early, is a great advantage, and it is here that I desire to speak in the highest praise of their industrious and economical wives. They not only attend to their household affairs, but in many instances do much outdoor work, and thereby aid in the support of their families equally as much as their husbands. Indeed, I do not believe that the wives of the work-people of any other nation toil as much as they do in this country.

With regard to divorce and illegitimacy it cannot be laid to the charge of Germany that such evils are of any frequency.

In this connection it may be interesting to give some information as to how the agricultural holdings in the German Empire are apportioned.

The number of farms in the German Empire is given as 5,276,344, amounting to 31,868,972 hectares, or 79,672,430 acres.

The sizes of these farms are classified as follows:

From 0 to 2 ares‡	66,143
2 to 5 ares	195,298
5 to 20 ares	656,193
20 to 1 hectare§	1,405,682
1 to 2 hectares	738,515
2 to 5 hectares	981,407
5 to 10 hectares	554,174
10 to 20 hectares	
20 to 50 hectares	

From 50 to 100 hectares	41,623
100 to 200 hectares	11,033
200 to 500 hectares	9,814
500 to 1,000 hectares	3,629
1,000 and upwards	515

The above figures show that of the 5,276,344 agricultural holdings about 17½ per cent. are from 0.0247 to one-half acre, 26 per cent from ½ to 2½ acres, 14 per cent. from 2½ to 5 acres, 18 per cent. from 5 to 12 acres, 17½ per cent. from 12 to 50 acres, 5½ per cent. from 50 to 247 acres, 0.40 per cent. from 247 to 1,235 acres, 0.07 per cent. from 1,235 to 2,420 acres.

The proportion of farm owners to the renters is given as follows:

Size of farms.	Owners.	Renters.
Below to 2½ acres	1,631,336	691,980
2½ acres to 247 acres	2,157,640	116,456
247 acres to 2,471 acres	638,414	15,527
2,471 acres and upwards	19,817	5,174

These figures show that out of the 5,276,344 agricultural holdings about 15.7 per cent. are rented.

In conclusion it may be said that while the number of emigrants to the United States of America is proportionately large it must not be overlooked that these emigrants are not such a great loss to Germany after all. The value of the exports from Germany to America in latter years amounts annually to an average of about $60,000,000, a trade which, I venture to say, is almost entirely kept up by the Germans themselves, and consequently it is obvious that Germany, on the other hand, is very materially benefited by their people in America.

WM. D. WAMER,
Consul.

UNITED STATES CONSULATE,
Cologne, June 1, 1886.

CREFELD.

REPORT OF CONSUL POTTER.

In compliance with instructions contained in Department circular dated April 27, 1886, requiring information regarding the "extent and character of the emigration from the consular district of Crefeld," I would report that careful inquiries at the offices of the local authorities and at the various chambers of commerce in this district reveal the fact that no records or statistics are there to be found which exhibit the "extent and character of emigration from this particular district," or which refer to the subject in any way.

Records relating to emigration from the Kingdom of Prussia appear to be kept only at Berlin. The extent of emigration from the entire

It may, however, be stated that the number emigrating from this consular district to America is very small when compared with the number leaving other parts of the Kingdom.

The class emigrating from the Crefeld district for America are mostly expert and reputable artisans connected with some branch of the great textile industry which centers in Crefeld. Persons of this class seldom leave this locality unless induced to do so by the certainty of higher wages in positions previously secured for or offered to them in similar industries.

The causes of limited emigration from this district are to be found in the fact—many times referred to in previous reports from this consulate—that the manufacture of silk goods in this locality is a "house industry," carried on in thousands of little homes scattered over a broad district of fertile country of which Crefeld is the center or counting-house, from which work for the weavers is distributed and received, and paid for when finished.

The maintenance of the weavers' "industrial homes" is encouraged and aided by manufacturers as a means of permanently retaining and controlling experienced and reliable employés. Though the earnings of the silk weavers are meager in the extreme, they love their homes and little gardens, and cling to them with a degree of attachment which threatening famine cannot sever. There are in Crefeld and surrounding country between 200,000 and 300,000 of this class of artisans, including the numerous members of their usually large families.

The social and moral condition of the "home workers" is higher than that of the factory hands in the city, and is widely different in many advantageous ways. There seems to be an element in the atmosphere surrounding "a home" that softens and refines the natures of the occupants and lifts them to a higher plane in social existence. They seldom express a desire to leave their homes and fatherland, and they are too poor to command the necessary means to emigrate, even if they desired so to do.

The attitude of the local governments and the manufacturers in this locality is that of opposition to emigration. They would rather, for the reason named, assist this class of artisans to remain where they are.

Deportation of chronic paupers, insane persons, or criminals to the United States from this district is not known to me. Had such events come to my knowledge they would, of course, have been immediately reported to the Department. It can, therefore, in a general way be said that from the Crefeld district no dangerous class of emigrants have gone to the United States during the past five years.

Instances worthy of mention and inviting some reflection are, however, known where expert dyers and Jacquard weavers, who appeared to be contented here with maximum wages of not more than $4 per week of seventy-two hours' labor, accepted offers and emigrated to the United States, where they earned from $15 to $18 per week of 60 hours, but who there soon became discontented and joined others in a strike for higher wages. It is known that a number of these persons have from choice returned and resumed their former situations at $4 per week of seventy-two hours, and again appear to be contented.

Strikes are of rare occurrence in this district, and when one does take place it is usually confined to a single manufacturing establishment and is not continued long.

communities that an effective strike in this country is possible, unless one is undertaken with a view to a violent appropriation or destruction of property belonging to classes of wealth. In Germany, whose army is so thoroughly in hand at all points, violence of that character is nearly impossible, and is not thought of or feared in any quarter.

THE GENERAL AND LOCAL GOVERNMENTS AND THE WORKING CLASSES.

After conferring with many intelligent representatives of the working people, the conclusion naturally arrived at is that the comparative degree of contentment which appears to prevail among the artisan classes of this district, and perhaps throughout the Kingdom of Prussia, is due to their intelligence and correct comprehension of prevailing facts. They know that the fortunes of manufacturers are generally small and slowly accumulated. There is not in this locality any sudden accumulations of wealth resulting from manufacturing operations. An interest of 5 or 6 per cent. on invested capital coupled, with the work, responsibility, and care of the manufacturer, will at this date correctly measure the limit of the capitalist's gains. It is known, too, that the extreme of economy and financial prudence is practiced in the management of the general and local governments, and that no great enterprises involving the expenditure of public treasure are undertaken unless in behalf of interests favorably affecting the laboring classes. The imperial and state governments and the local governments in Germany, while working under the disadvantage of overpopulation, appear to be ceaseless in earnest practical efforts to promote the commerce, manufactures, and trade of the country with a view of keeping its people busy. To accomplish such an object seems to be regarded as the very essence of the functions of Government.

The public servants of Prussia, in all departments of Government, seem to realize that a busy people are contented, and that idleness breeds discontent and anarchy.

The recent acquisition by Germany of territory in different parts of the earth was undertaken with the sole view of finding homes and business for her redundant population, and at the same time creating a market for the products of home industries. The emigration of certain classes to these localities under German control is encouraged, and, while no serious restraint is put upon emigration to other countries, it is not, I think, encouraged by the Government.

The burdens of general and local taxation are heavy, but it is well understood that they are as light as it is possible to make them. No one complains of waste or extravagance in public expenditures. The army is enormous in numbers, but it is maintained at a minimum of cost. The pay of its officers is in due proportion to that of the common soldier, who receives but 5 cents per day, and with this sum he is obliged to keep his equipments in a condition of perfect order and neatness, and purchase for himself coffee, shoe-blacking, and the material with which he polishes the buttons and whitens the belt of his uniform. There are hardships connected with this enforced economy, but it is a complaining German soldier, or one who is

might be increased, but the present output is already larger than the market demands. It is, therefore, assumed that the five or six hundred thousand young men now in the army, if liberated, would add nothing as producers to the wealth of the overpopulated country, while the Government can, by healthful training, improve their minds and bodies and give them a wholesale support as soldiers much cheaper than it could be retailed to them at home, where they can neither find room nor productive occupation.

To the suggestion that the men might relieve the peasant women of the masculine work now performed by them, the answer is made, "That would add nothing to the productive wealth of the country, and besides, what would the peasant women with good appetites do?"

Such is the logic of intelligent workingmen with whom I have conversed. They understand the inevitable industrial condition of their country, and adequately measure the relations of the Government to the working classes. The policy of the Government touching import duties and systems of collecting revenue is sometimes questioned, but its purpose to benefit the laboring classes and faithfully serve the public welfare is seldom doubted.

While, therefore, the artisan class here may regard their lot in life as hard to bear, they do not trace the cause of it to rulers and politicians, or to laws and customs, nor to the inhumanity and indifference of society and the communities in which they live. They solve the difficulty with a shrug of the shoulders, and simply say, "There too many of us," and wisely conclude that complaints are useless when there are no visible remedies to apply to them but emigration. For these reasons they resolve to be contented and study methods of extracting from life all the fractions of happiness accessible to them. And the amount of personal enjoyment which a German artisan manages to secure by an ingenious use of his scanty earnings might furnish valuable suggestions to those who are uneasy and discontented until they have attained the rank of "millionaire."

The efforts during the last three or four years of the general and local governments to improve the condition of the laboring classes has had a tendency to check emigration to the United States. Satisfaction with the work of rulers has produced, in a degree, contentment and hope, and it is only the more undesirable classes who are now not unwilling emigrants from their fatherland.

In further replying to the fourth inquiry of the circular, I beg to say, "the general manner of living, as regards housing, eating, and clothing" of the artisan class in this district has been fully described and illustrated in several reports of recent date from this consulate, to which I respectfully refer as follows:

Report on Labor in Europe, 1884; also to Report on Improved Machinery for the Manufacture of Textile Goods, 1885, pages 408 to 410; also to Report on Leather, Boots and Shoes, 1885, and to Report on Agriculture in Germany, 1886.*

The following tables give the latest accessible information regarding "marriages and divorce facts, children, 'natural' and legitimate, religion, emigration, births," &c.

J. S. POWELL

Number of marriages, and the religion of the parties, in the consular district of Crefeld during the year 1884; also the number of deaths and the number of divorces during the same period; also showing the immigration into the district from all countries, including returned German emigrants who left the district with and without Government consent, and who were renaturalized after their return; also showing the percentage of illegitimate births and the proportion of still-born legitimate and illegitimate children.

Local districts included in the consular district of Crefeld.	Marriages.					Divorces.	Percentage of illegitimate births in total number born.	
	Religion.				Total.	Number recorded in the year 1884.	Males.	Females.
	Protestant.	Catholic.	Jews.	Other denominations.				
Cleve	31	285	6	9	331	.....	3.4	2.5
Rees	133	269	4	40	446	.....	3.1	3.6
Crefeld	117	777	11	138	1,043	5	3.7	5.4
Duisburg	149	161	3	108	421	.....	3.3	2.4
Moers	264	231	2	23	520	.....	3.9	2.2
Kempen	15	729	2	5	751	.....	3.3	3.4
Gladbach	167	853	7	47	1,074	.....	2.9	2.4
Geldern	13	352	3	7	375	.....	2.0	2.4
Total	889	3,657	38	377	4,961	5	25.6	24.3

Local districts included in the consular district of Crefeld.	Deaths (including still-born).						Number legitimate in 1,000 of still-born.	
	Total.		In public hospitals.		Children one year of age and under, legitimate and illegitimate.			
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Cleve	609	542	33	27	306	18	1.3	1.3
Rees	709	716	71	60	407	26	1.1	1.3
Crefeld	1,625	1,397	128	75	1,194	114	1.6	1.3
Duisburg	695	573	88	51	495	23	2.4	1.3
Moers	795	736	9	17	435	22	2.6	1.5
Kempen	1,254	1,160	38	33	762	44	1.7	1.5
Gladbach	1,851	1,649	17	11	1,220	74	1.7	1.4
Geldern	691	655	20	13	345	14	1.5	1.1
Total	8,229	7,428	404	287	5,164	335	13.9	10.7

Local districts included in the consular district of Crefeld.	Number illegitimate in 10,000 of still-born.		Immigration into the consular district of Crefeld from all countries.					
			Foreigners naturalized and returned German emigrants renaturalized.		Number who emigrated with consent of the Government.		Number who emigrated without consent of the Government.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Cleve	1	1	10	1	60	43	6	.....
Rees	1	½	20	16	18	8	16	.....
Crefeld	1	1	67	68	21	6	86	.....
Duisburg								
Moers								
Kempen								
Gladbach								
Geldern								
Total	1	1	8	10	8	1	7	.....
						3	23	.....

Number of inhabitants in the consular district of Crefeld in 1880, *and the total number of births during the year* 1884.

Local districts.	Population, December 1, 1880.			Total births.		Legitimate live-born.		Legitimate still-born.		Illegitimate live-born.		Illegitimate still-born.	
	Males.	Females.	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Cleve	25,208	25,324	50,532	941	864	876	808	33	34	29	19	3	3
Rees	33,238	30,534	63,772	1,144	1,136	1,069	1,055	39	40	31	39	5	2
Crefeld*	50,949	54,672	†105,621	2,612	2,358	2,429	2,157	86	73	91	122	6	6
Duisburg	20,998	20,244	41,244	1,127	1,078	1,038	1,025	51	27	36	25	2	1
Moers	32,194	31,402	63,596	1,275	1,124	1,141	1,050	84	49	47	23	3	2
Kempen	45,295	45,159	90,554	1,809	1,735	1,670	1,603	78	72	56	56	5	4
Gladbach	61,065	62,420	123,485	2,784	2,702	2,577	2,522	109	91	77	66	3	....
Geldern	26,521	26,253	52,774	997	903	937	852	40	29	18	21	2	1
Total	295,568	296,008	591,576	12,689	11,900	11,737	11,072	520	415	385	371	29	19

* Born in public institutions, 3. † Present population about 120,000.

HAMBURG.

REPORT OF CONSUL LANG.

Precise statistical account of the number of emigrants departing from Hamburg to foreign ports has been kept since the year 1826, but no emigration office or bureau, whose duty it was to take in hand and control all matters and subjects relating to emigration, was established until the year 1874. Notwithstanding every effort is made to have all statements relating to emigration as accurate as possible, yet errors and inaccuracies frequently occur, principally traceable to erroneous statements made by the emigrants themselves. The time between their arrival and departure is too short to admit of extended inquiry.

The subjoined tables contain the official reports compiled at the emigration office in Hamburg. From these reports it will be seen that a large number of those who have emigrated by the way of Hamburg have refused to make declaration of their profession or avocation.

From 1879 to 1883 the number reached 33,143 persons, or 23.1 per cent. of the total emigration. It will therefore be impossible to give a correct statement of the emigration as to their callings and professions. Among those refusing to give full and correct information to Government officials are embraced the worst elements, the criminals and refugees from justice. The better and more substantial persons who emigrate make no hesitancy in furnishing full and satisfactory information.

During the year 1884 (to this date Government statistics have been published) there have been conveyed from Hamburg to different foreign ports 91,603 emigrants. Comparing this number with the number conveyed in 1883, there is an increase of 2.39 per cent.

Emigrants conveyed—	1884.	1883.	Increase +; decrease —.
Direct			

CAUSES OF EMIGRATION.

The inclosed statistical tables show that the emigration by way of Hamburg for the year 1884 numbered 49,985 souls of German birth. This is a large number of people, and it is not unnatural to inquire why so many choose to leave their native land. The causes are to be found in the social conditions of the German population. The chief reason which influences so many, and especially those elements which are not impoverished but may be considered the most energetic, to seek their fortunes in new lands, is overpopulation. Another cause can be traced to that old roving spirit of the Germans, which has carried thousands across the seas to improve their fortunes, and has established German habits and customs upon so many distant soils. This class, too, are by no means needy.

While we speak of overpopulation as a cause and principal factor in producing emigration, it must be observed that the most densely populated districts do not furnish the largest number of emigrants. Two things are to be considered, population and the natural resources of the country. The centers of the densest population are also the centers of the most active commerce and industry, where the resources afford a greater multiplicity of employment.

Even in purely agricultural districts, thinly populated, there appears an overpopulation, for the lands are held by comparatively few, and with the exception of the denizens of the cities and towns, the population is employed as day-laborers, small tenants, and help upon lands that do not belong to them and which they never can hope to acquire.

The largest contingent of emigration is drawn from the agricultural class. This is demonstrated in the case of Pomerania, the thinnest populated province of Prussia, yet it furnishes the largest number of emigrants, as is exhibited by inclosed table.

In Pomerania the lands are in the hands of large land-owners. The condition of the tenants and day-laborers are not unlike those of Ireland, where the population diminished during the period of 1845 to 1880 from 8,295,000 to 5,160,000, mainly through emigration.

The decrease by emigration from Pomerania is not so large as that from Ireland, but approaches nearer these figures than any other German province.

Before the year 1885 the two western provinces of Prussia furnished a larger quota of emigrants than the six eastern, but since that period the contingent of emigration from the eastern provinces has been greater than from the western.

The movement of the tides of emigration has been from the west to the east. This no doubt is due to the development of Rhenish and Westphalian industries, which have furnished new employments to thousands of persons who would have emigrated, but have found in their homes the means of earning a livelihood.

The new Prussian territories, Schleswig-Holstein, Hanover, and Hesse-Nassau, put forth a very large emigration for a few years after 1866, and though it has diminished to some extent, it is still large, embracing a greater average than the other provinces.

CHARACTER OF THE EMIGRATION.

Bavaria, an almost entirely agricultural state, shows less emigration than any other state, which is quite certainly due to the fact that the condition of the small farmers is more favorable and their prosperity more pleasing in Bavaria than elsewhere in Germany.

The lands in Bavaria are parceled out in small properties to freeholders; large entails do not exist, and the consequence is that the farmers are content, and unfavorable to leaving their native land with all its endearments.

Of the whole emigration, 21.9 per cent. are from the rural districts. The percentage, though large, can be easily accounted for. Not only the small farmers but also the agricultural day-laborers and servants, as well as agricultural artisans and mechanics, are included in these computations. Those constituting this class are the best fitted and adapted to colonize new countries, but they, more than all others, are urged by a direct wish and an implacable desire to become landowners. They compare their position in the old country to that of their own masters, and go willingly to a country that offers them a hope, through diligence, perseverance, and patient labor, to acquire a home with like comforts of those of their masters. If this be not their sole aim, the higher wages paid agricultural laborers in the United States tempts thousands to try their fortunes in America.

This class of emigrants is the most beneficial to the new countries awaiting development, and it is therefore favorable to the United States that it constitutes such a large proportion of German emigration.

Persons belonging to the scientific professions and to commercial pursuits have not the same inducements to seek homes and employment in new countries as those engaged in agricultural pursuits; the prospects for ready engagement are not so favorable to them. If in their country trade and commerce are depressed, to them there is a hope left that a change may take place and trade and prosperity may be revived. To the tillers of the soil no anticipations of a brighter future can be entertained; the lands are fully developed and occupied, and overburdened with teeming, patient laborers. The only bow of promise to them is in emigrating to more inviting fields. Here is a reason for so large annual outpouring of the German agricultural population.

EMIGRATION IS VOLUNTARY.

The emigration from Germany is voluntary. By a law passed June 1, 1870, all persons who choose to do so can emigrate in times of peace except those who have not yet fulfilled their duty as citizens in respect to military service.

Under the compulsory system of military service every able-bodied male inhabitant of the Empire must serve three years, but under some circumstances this period may be reduced to one year. All those actively engaged in the army and navy and those belonging to the reserve (*Landwehr*), and all persons between the ages of seventeen and twenty-five years who have not produced testimony that they are not emigrating to avoid military service, are forbidden from emigrating by the fifteenth article of the emigration law.

The penalty in[illegible]

Persons who are free from military service are permitted to leave the country.

No passport or certificate of citizenship is granted. Ten years' voluntary absence forfeits all rights and privileges of citizenship. The greater part of the emigrants are free of military service, yet there are some who owe military duty and seek to evade it by emigrating.

It would be difficult to ascertain the correct number, as the statistics can only be obtained through the list of military deserters, which is not made public, but it is estimated that the desertions from military service by emigration numbered 10,690, of which 4,503 were agricultural laborers.

The Government neither favors nor restrains emigration; all its ordinances on the subject look only to the welfare and kind treatment which shall be extended to them on their journey. It was indeed a long time before the Government arrived at this wise conclusion. Prohibitive measures were tried and proved void of results. It would be impossible to check the tide of emigration without presenting through the industrial pursuits a more favoring prospect of a coming prosperity.

Another cause promotive of emigration is found in the *Socialistengesetz* (Socialistic law). This law was enacted by the force of public sentiment aggravated by the two attempts on the life of the venerable Emperor William, and deprives many, on account of their political opinions, of their privileges, and relegates them to the administrative power of the police. Under the provisions of this law a person who is suspected of Socialistic views may be banished from the city where he lives. Also by this law certain cities are placed partially under martial law, viz, Berlin, Hamburg, Leipsic, Chemnitz, and more recently Spremberg.

As other German states pursue a like course the Socialist finds himself forced to seek shelter and home in some other country. The greater number of Socialists who have emigrated have gone directly to the United States. This may be stated as the only way in which the German Government exerts an influence which would encourage emigration, and if it does this, it is indirectly.

Criminals are never banished; on the contrary, they are forbidden to leave the country until they have suffered the penalty which the law inflicts. If they escape, every effort is made to recapture them. Banishment has never been adopted by the German Government as a method of riddance of the mischievous and turbulent elements of society; even penal settlements have ever been repulsive to the ideas of the Imperial Parliament. As the bulk of German emigration goes to the United States, so also the majority of the criminals and refuse of society that leave the country find their way there.

The freedom of our republican form of Government, the liberty of the press, and the right to hold public assemblies have proved to be a congenial encouragement to Socialistic agitators.

An opinion prevails that leading members of the German Socialistic party are going to the United States for the purpose of consolidating and molding into one solid, compact party the German Socialists who have heretofore emigrated there, and who are now acting in a separate

the rules, precepts, ideas, and teachings of his party. Socialism is the blossom and anarchy is the fruit from seed sown by Barleau, Lasalle, Marx, and other eminent Social-Democrats. The strict police regulations of the German Government suppress Anarchism by sheer force, but it may be a question pregnant with alarm that two-thirds of the Social-Democrats who have and are emigrating to the United States may not grow step by step under our free institutions more and more radical in their views and demands, thus becoming Anarchists and the disturbers of the peace and order of society.

A deportation of paupers is never practiced by the Government. The emigrants are by no means wealthy, or in many instances not even well-to-do citizens, but are not paupers. They have money enough to pay their passage, and not infrequently a sum to aid them in making a commencement in their new home. Large numbers are induced to go over by friends who have settled in America and have succeeded, and they often assist them by sending a prepaid passage ticket.

The emigrants from the northern districts of Germany, Schleswig-Holstein, Hanover, Mecklenburg, Lubeck, and the Hamburg territory are sober, steady, patient, and industrious people. They live plainly, having no pretensions in regard to the style of their houses or their modes of living and dressing. They expect to find a remuneration for hard labor such as they are accustomed to, better living, and more agreeable conditions of life than they leave. Such persons are rarely disappointed; they are generally contented and become valuable citizens.

Religious proscriptions cannot be stated as a cause of emigration. Nearly all the states of Germany recognize a state church, yet all creeds of religious faith enjoy equal rights and privileges in worshiping. It has ever been a prominent feature in the Hamburg Government to tolerate the largest religious liberty. The recent anti-Semitic movement may have induced a few Israelites to leave the country, but as the prosecution has been confined to a few individuals, it has not and cannot be assigned as a cause producing emigration.

Insane persons are only allowed to emigrate in company with their relatives and guardians. The strictest regulations are observed to prevent the escape of unfortunate lunatics, who under the authorities must be taken care of either in private asylums or in the Government sanitariums, which are model institutions of their kind.

Neither in Hamburg nor in the German Empire is emigration considered as a fit or lawful method of ridding the country of the obnoxious elements of the population.

There is no such thing as assisted emigration by the German Government, but by some foreign Governments, especially some of the South American states, which fully realize the value and importance of the introduction of a laboring population, which with favoring conditions would develop into the best and most useful citizens.

The efforts of these states to turn the channels of emigration from the United States have proven of little or no consequence. The only instances of assisted emigration from Germany are those of some member or members of a family whose course of life would reflect dishonor to the family's name and social standing; to avoid this the relatives or friends ship him or them to the United States [illegible] of life in

this is not the case these persons become chronic growlers, join the bards of disaffected, and become Anarchists and disturbers of order and social quietude. From my knowledge of the character of German emigrants that have settled in the United States the good largely predominates. Of course where there is much light there must be some shadow.

Among the German element of our population there are to be found many eminent and praiseworthy features that would honor and embellish the citizenship of any country. It is true, there have been some importations whose conduct would naturally array in hostility the sentiment of all good and just people, but we have the consoling reflection that by the force of sound and just administration of public opinion *all* disturbances produced by such persons will be quickly stamped out and the actors consigned to an ignominious oblivion.

The only method which suggests itself to my mind for limiting and restricting emigration to the United States is to place it under consular inspection at the port of embarkation. Let the vessels *understand* that they will not be allowed to land emigrants who have not passed the inspection of the consular officer of the port from whence the ship sails and who do not bear his certificate of inspection. This inspection should embrace healthfulness, physical condition to earn a living, ability to support themselves until employment could be obtained, character for honesty and industry and obedience to law, &c.

WM. W. LANG,
Consul.

UNITED STATES CONSULATE,
Hamburg, June 16, 1886.

Destination of emigrants conveyed via Hamburg in the year 1884.

tive place (home).	Destination.																											
	United States of America.		British North America.		Central America and Mexico.		West Indies.		Brazil.		Argentine Republic.		Peru.		Chili.		Other South American states.		Africa.		Asia.		Australia.		Total.		Total both sexes.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
ssia	505	346	4	6	....	....	....	....	3	....	5	....	....	....	1	1	4	....	3	1	....	....	4	1	529	355	884
ussia	2,525	2,044	82	67	....	....	....	....	2	2	2	....	....	....	2	1	2	....	2	....	1	....	6	1	2,624	2,115	4,739
and Berlin	2,327	1,768	13	9	3	1	3	....	29	16	22	6	2	....	56	36	23	6	19	6	2	....	54	3	2,583	1,879	4,462
	3,084	2,725	156	152	....	....	....	....	13	5	15	5	....	....	5	....	2	....	4	1	....	....	15	4	3,294	2,892	6,186
	2,923	2,212	51	30	1	....	....	....	4	5	13	1	....	....	1	1	..	....	3	....	....	....	10	3	3,007	2,252	5,259
ssian)	1,256	844	11	9	....	....	1	....	43	28	9	3	4	....	10	9	8	2	13	....	....	....	20	14	1,375	909	2,284
olstein	695	402	29	20	2	....	....	....	44	14	3	2	1	....	11	4	2	1	2	....	1	....	31	14	821	457	1,278
	3,979	3,091	15	19	5	....	2	....	37	28	80	47	1	1	14	11	18	13	20	11	2	1	53	35	4,226	3,257	7,483
	948	658	1	1	6	....	....	....	32	5	17	4	6	6	10	2	4	....	12	3	2	....	47	26	1,085	705	1,790
	143	75	....	....	1	....	....	....	6	3	14	4	....	....	3	....	1	12	3	1	....	....	9	1	180	96	276
	418	304	2	8	....	....	....	....	5	2	6	7	3	2	17	7	....	....	12	9	....	....	13	4	476	343	819
sia	196	116	4	4	2	....	....	....	17	7	8	4	....	....	3	1	4	3	7	1	2	....	10	4	253	140	393
	26	16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	26	16	42
om Prussia	19,055	14,601	369	325	20	1	6	....	253	115	194	83	17	9	133	73	68	37	100	33	10	1	272	138	20,479	15,416	35,895
of Rhine)	1,466	1,012	8	3	1	....	....	....	6	8	4	....	3	....	....	....	1	...	6	1	....	....	12	2	1,507	1,026	2,533
z (Palatinate)	7	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	9	5	14
	926	520	2	...	2	....	....	....	27	9	11	5	....	....	11	4	9	1	10	3	....	....	16	3	1,014	545	1,559
	959	705	1	1	2	....	....	....	11	2	4	1	1	....	4	2	....	....	3	2	1	....	14	9	1,000	722	1,722
	283	197	1	....	3	....	....	....	6	4	5	1	....	....	2	1	3	1	....	....	....	....	4	3	307	207	514
	340	253	....	....	....	....	....	....	8	7	2	....	....	....	....	....	....	....	1	2	....	....	2	3	353	265	618
Schwerin	1,719	1,416	2	4	1	....	1	....	6	3	7	3	3	1	4	....	6	5	4	....	1	....	15	3	1,769	1,435	3,204
	90	55	1	....	....	....	....	....	6	3	...	....	....	....	1	....	1	....	....	....	....	....	....	...	99	58	157
trelitz	240	222	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	241	222	463
	50	43	....	....	....	....	....	....	3	2	....	....	2	....	2	2	2	2	2	....	1	2	1	....	62	49	111
	80	50	2	1	....	....	....	....	3	1	1	....	1	....	3	2	3	2	1	1	1	....	7	4	100	59	159
n	39	27	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	2	....	43	27	70
	30	17	....	....	....	....	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	32	18	50
otha	33	18	2	....	....	....	....	....	1	1	....	....	....	....	1	....	1	....	....	1	....	....	3	1	40	21	61
	35	31	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	1	....	....	....	1	....	38	32	70
ondershausen	14	3	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	15	3	18
udolstadt	22	13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	24	13	37
	2	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	5

Destination of emigrants conveyed via Hamburg in the year 1884—Continued.

(home).	Destination.																													
	United States of America.		British North America.		Central America and Mexico.		West Indies.		Brazil.		Argentine Republic.		Peru.		Chili.		Other South American states.		Africa.		Asia.		Australia.		Total.		Total both sexes.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
	3	.....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	.....	3
	42	16	....	....	....	....	....	....	1	....	1	....	1	....	....	....	....	....	....	....	1	....	1	....	....	....	48	16	64
s	4	.....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	5	2	7
	8	.....	....	....	....	....	....	....	2	....	....	....	2	....	....	....	1	4	....	....	....	....	1	....	....	....	10	.....	10
	94	71	1	....	1	....	....	....	3	1	6	....	2	....	2	1	5	2	4	2	3	....	3	1	1,294	1,006	2,300
	38	27	1	....	1	....	3	....	3	25	40	11	10	7	36	21	46	27	30	20	12	2	61	56	28	25	53
	999	835	3	1	5	1	9	....	43	1	1	....	....	....	....	....	....	....	1	....	....	....	....	....			
	23	24	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....			
	26, 601	20, 163	393	335	37	2	20	....	367	183	281	106	42	17	199	108	145	73	165	65	30	5	423	225	28, 703	21, 282	49, 985
ermany	4, 106	2, 058	10	9	1	....	....	....	177	118	8	3	8	....	1	1	3	....	2	....	....	....	5	4	4, 321	2, 193	6, 514
	2, 550	2, 049	20	17	....	....	....	....	28	10	1	2	1	....	2	2	....	....	1	2	....	....	7	3	2, 609	2, 083	4, 692
	5, 703	2, 125	18	8	....	....	....	....	10	8	5	3	....	....	....	....	2	....	1	....	....	....	....	....	5, 739	2, 146	7, 885
	31	8	....	....	....	....	....	....	3	4	4	....	1	....	2	....	2	....	3	....	....	....	1	....	49	12	61
	1, 322	676	5	1	....	....	10	3	7	3	26	7	2	2	2	....	1	....	7	2	1	1	30	9	1, 413	704	2, 117
	382	167	1	....	....	....	....	....	4	....	8	....	....	....	2	....	5	3	1	....	....	1	14	10	417	181	598
	292	143	....	....	....	....	....	....	1	1	....	....	....	....	3	4	1	....	1	....	....	....	9	7	307	155	462
	.....	.....	....	....	....	....	....	....	....	....	4	1	....	....	....	....	....	....	....	....	....	....	....	....	4	1	5
	6	4	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	9	....	....	....	....	....	15	4	19
	544	407	55	16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	600	423	1, 023
	6	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	4	10
	7	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	5	13
	10	8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	22	10	32
	1	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	10	2	....	....	1	.....	1
	24	4	....	....	....	....	1	....	3	2	15	8	....	....	....	....	....	....	....	....	....	....	1	....	29	5	34
	9, 865	4, 404	23	18	....	....	....	....	1	....	....	....	....	....	....	....	2	3	2	....	....	....	2	3	9, 978	445	10, 423
nd	74	11	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	..	56	5	....	2	14	....	77	11	88
	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	3
	.....	.....	....	....	....	....	....	....	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	4

	16																								16		16
	1	2																							1	2	3
l from European states	51,543	32,239	525	404	38	2	31	3	603	331	352	130	54	19	212	116	163	79	251	74	43	11	504	261	54,319	33,669	87,988
tes of America	1,847	1,100	3						1		1				2		3		3	1			5	3	1,865	1,104	2,969
orth America	9	4	1	2																					10	6	16
d Central America	6	3			4	1										1	3								13	5	18
es	15	13					9	1									2	1							26	15	41
	5	4					1		103	99	2						2	2							113	105	218
Republic	2								1		63	47					1						2		69	47	116
													7	8											7	8	15
											1			1	24	10									25	11	36
American states	11	6									2		1				14	9							28	15	43
	2	1							1		1								25	15					29	16	45
	22	1																			41	12	1		64	13	77
	4	1																					41	2	18	3	21
	53,466	33,372	529	406	42	3	41	4	709	430	422	177	62	28	238	127	188	91	279	90	84	23	526	206	56,586	35,017	91,603

RECAPITULATION.

Prussia	19,055	14,601	369	325	20	1	6	....	235	115	194	83	17	9	133	73	68	37	100	33	10	1	272	138	20,479	15,416	35,895
	7,546	5,562	24	10	17	1	14	....	132	68	87	23	25	8	66	35	77	36	65	23	20	4	151	87	8,224	5,866	14,090
tes	24,942	12,076	132	69	1	....	11	3	236	148	71	24	12	2	13	8	18	6	86	9	13	6	81	36	25,616	12,387	38,003
n states	1,932	1,133	4	2	4	1	10	1	106	99	70	47	8	9	26	11	25	12	28	16	41	12	25	5	2,267	1,348	3,615
	53,466	33,372	529	406	42	3	41	4	709	430	422	177	62	28	238	127	188	91	279	90	84	23	526	206	56,586	35,617	91,603

Number of vessels, and their destination, by which emigrants were conveyed direct from Hamburg in 1884.

Destination.	Emigrants.	Steamships.	Sailing-vessels.
New York	71,805	116	----------
Brazil	1,014	15	----------
La Plata states	520	12	----------
West coast of South America	56	2	----------
Australia	708	9	----------
Various transatlantic ports	1,161	126	27
	75,264	280	27

Direct from Hamburg to—	1884.		1883.	
	Vessels.	Passengers.	Vessels.	Passengers.
United States	116	71,805	105	78,827
Brazil	15	1,014	12	1,145
La Plata states	12	520	9	343
Chili	2	56	3	91
West Indies	----------	----------	1	34
Africa	----------	----------	6	619
Australia	9	708	10	1,085
Various transatlantic ports on vessels not intended for passenger traffic	----------	1,161	----------	1,059
	154	75,264	146	76,200
Indirectly conveyed	----------	16,339	----------	13,205
Total	----------	91,603	----------	89,465

Emigrants conveyed via Hamburg in each month during the years 1883 *and* 1884.

Month.	1884.					1883.
	Conveyed direct by—		Total conveyed direct.	Indirectly conveyed.	Total.	Total 1883.
	Packet ships.	Ships carrying less than 25 passengers.				
January	3,082	120	3,202	604	3,806	2,632
February	5,164	86	5,250	650	5,900	4,002
March	9,027	74	9,101	2,347	11,448	6,698
April	11,256	66	11,322	2,468	13,790	12,815
May	10,446	51	10,497	4,338	14,835	12,637
June	6,424	97	6,521	1,125	7,646	7,837
July	9,268	105	6,373	1,078	7,451	6,692
August	5,694	143	5,837	1,183	7,020	6,869
September	4,839	87	4,926	733	5,659	7,835
October	6,694	121	6,815	730	7,545	11,074
November	3,865	106	3,971	743	4,714	6,806
December	1,344	105	1,449	340	1,789	3,568
Total	74,103	1,161	75,264	16,339	91,603	89,465

Sex and age of emigrants conveyed, direct and indirect, from Hamburg to foreign ports during the years 1883 *and* 1884.

Year.	Adults.		Total adults.	Children.		Total.
	Male.	Female.		Less than 10 years.	Less than 1 year.	
Conveyed direct:						
1884	44,681	30,403	56,489	14,009	4,631	75,264
1883	44,678	30,463	55,748	14,289	5,104	75,141
Conveyed indirect:						
1884	11,725	4,614	13,894	1,890	555	16,339
1883	9,293	3,972	11,041	1,832	392	13,265

Emigrants conveyed from various European ports to transatlantic places in 1883 *and* 1884.

Conveyed from—	1884.	1883.
Hamburg	91,603	89,465
Bremen	103,121	111,295
Stettin	773	548
Antwerp	28,616	34,480
Havre	21,634	25,502
Great Britain and Ireland	303,901	391,157

Emigrants conveyed from Hamburg to transatlantic ports since 1846.

Year.	Direct, by—		Total direct.	Indirect.	Grand total.
	Emigrant vessels.	Other vessels.			
1846	4,857	.....	4,857	.....	4,857
1847	7,628	.....	7,628	.....	7,628
1848	6,585	.....	6,585	.....	6,585
1849	5,620	.....	5,620	.....	5,620
1850	7,295	135	7,430	.....	7,430
1851	12,095	184	12,279	.....	12,279
1852	21,345	571	21,916	7,119	29,035
1853	18,585	384	18,969	10,511	29,480
1854	31,753	557	32,310	18,509	50,819
1855	15,226	437	15,663	2,989	18,652
1856	23,822	464	24,286	1,917	26,203
1857	28,568	326	28,894	2,672	31,566
1858	18,473	349	18,822	977	19,799
1859	12,534	219	12,753	489	13,242
1860	14,690	223	14,913	1,302	16,215
1861	13,540	184	13,724	675	14,399
1862	18,373	187	18,560	1,517	20,077
1863	21,866	194	22,060	2,621	24,681
1864	19,744	213	19,957	5,098	25,055
1865	36,878	334	37,212	5,672	42,884
1866	38,627	413	39,040	5,740	44,780
1867	37,872	298	38,170	4,675	42,845
1868	43,505	123	43,628	6,442	50,050
1869	41,217	207	41,424	5,870	47,294
1870	27,392	50	27,442	5,114	32,556
1871	34,639	504	35,143	7,081	42,224
1872	52,828	395	53,223	21,183	74,406
1873	44,278	300	44,578	24,598	69,176
1874	30,152	473	30,625	12,818	43,443
1875	21,561	377	21,938	9,872	31,810
1876	20,615	564	21,179	7,554	28,733
1877	18,573	427	19,000	3,570	22,570
1878	19,932	514	20,446	4,357	24,803
1879	17,030	775	17,805		
1880					

Ages of emigrants (Germans) conveyed via Hamburg to foreign ports from 1874 *to* 1883

Year.	Less than 1 year.	1 to 5 years.	5 to 15 years.	15 to 20 years.	20 to 30 years.	30 to 40 years.	40 to 60 years.	60 years and above.	Between the ages of 15 and 60.	
									Total.	Per-centage.
1874	2,671	3,566	7,580	5,981	11,776	6,089	5,166	614	29,012	66.8
1875	1,602	2,578	5,150	4,408	8,920	4,738	3,933	481	21,999	69.2
1876	1,682	2,197	4,515	3,710	8,366	4,456	3,396	411	19,928	69.8
1877	1,219	1,824	3,287	3,049	6,791	3,532	2,251	356	15,884	70.4
1878	1,397	1,921	3,486	3,643	7,382	3,797	2,757	420	15,579	70.9
1879	1,242	1,602	3,093	3,780	8,595	3,700	2,553	299	18,628	74.9
1880	4,273	5,105	8,924	9,704	23,085	10,307	6,673	816	49,769	72.2
1881	8,797	10,836	16,605	14,968	39,959	19,035	11,546	1,385	85,508	69.4
1882	7,389	8,482	15,384	15,271	36,910	17,420	11,024	1,384	80,625	71.2
1883	5,506	6,752	12,496	12,367	28,833	13,114	9,250	1,147	63,564	71.0
Total	35,775	44,823	80,520	76,881	180,617	86,179	58,819	7,313	402,496	70.5
Percentage.	6.3	7.6	14.0	13.5	31.6	15.1	10.3	1.3	70.5	.....

Professions of emigrants conveyed from Hamburg, 1879 *to* 1883.

Profession.	1879.	1880.	1881.	1882.	1883.	Total.
Agriculture, fishery, and forestry	5,654	13,761	20,555	19,656	14,648	74,274
Other industries	4,602	14,132	18,912	15,900	12,191	65,737
Commerce	4,033	7,377	7,941	7,669	5,814	32,834
Workmen without distinct calling	3,369	16,330	46,029	39,186	30,848	35,762
Different trades	1,223	2,074	2,529	2,627	2,215	10,666
Laborers without any profession	195	349	339	315	203	1,069
Profession not declared	5,788	14,864	26,862	27,868	23,548	98,894
Total	24,864	68,887	123,131	113,221	89,465	319,564

ITALY.

ROME.

REPORT OF CONSUL-GENERAL ALDEN.

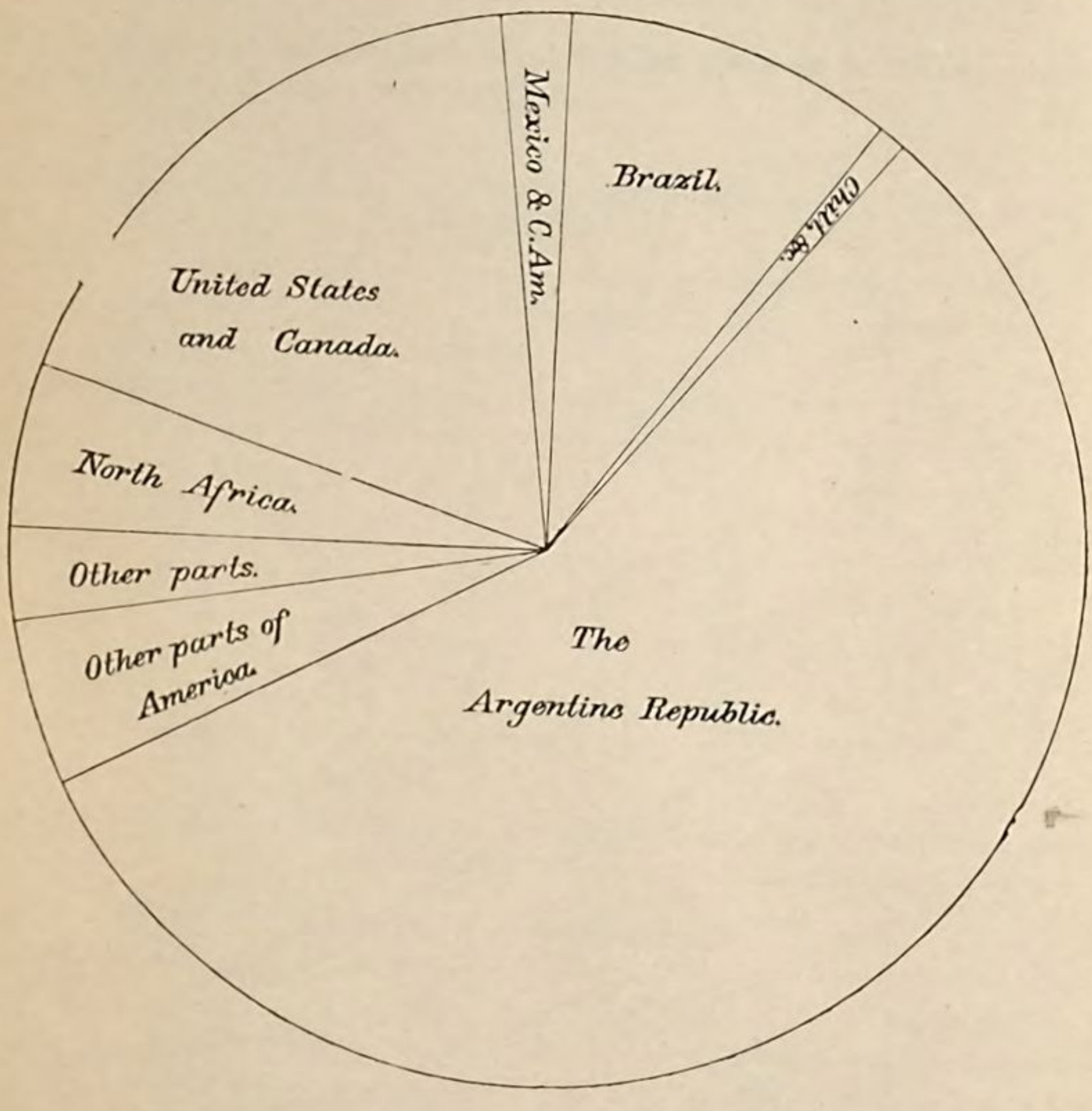
In compliance with the instru ctions contained in the Department circular dated April 27, 1886, I have the honor to report the following facts relating to emigration to the United States from this consular district, and also from the Kingdom of Italy to the United States, from 1876 to 1885, so far as they can be obtained.

No statistics prior to 1876 can be obtained, for the reason that a different system of registry was adopted beginning with that year.

I may here remark that the area covered by the consular district of Rome is roughly estimated to include nine of the sixty-nine provinces making up the Kingdom of Italy; this district may also be roughly estimated to cover 17,398 square miles, having a population of 3,500,000 inhabitants.

Emigrants are divided by Italian statisticians into two kinds, namely, permanent and temporary, the latter consisting of persons who leave [illegible] for travel or to seek work in

DISTRIBUTION OF EMIGRATION FROM ITALY IN 1884.



as this district can be defined for statistical purposes to the United States from 1876 to 1885, was as follows:

Year.	Total number of emigrants.	Year.	Total number of emigrants.
1876	15	1881	324
1877	2	1882	561
1878	30	1883	531
1879	42	1884	178
1880	80	1885	326

The diminution in 1884 in this district, as well as in other parts of Italy, was owing to the cholera epidemic.

Emigrants according to sex from the consular district of Rome to the United States, from 1876 to 1885.

Years.	Permanent.			Temporary.			Grand total.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1876	6	2	8	7	.....	7	13	2	15
1877	.....	.....	.....	2	.....	2	2	.....	2
1878	.....	.....	.....	18	12	30	18	12	30
1879	24	11	35	2	5	7	26	16	42
1880	31	3	34	44	2	46	75	5	80
1881	204	32	236	75	13	88	279	45	324
1882	514	24	538	23	.....	23	537	24	561
1883	427	25	452	68	11	79	495	36	532
1884	135	20	155	19	4	23	154	24	178
1885	188	49	237	78	11	89	266	60	326

Occupations of emigrants from the consular district of Rome to the United States between 1882 and 1885.

[Proportion for every 100 emigrants.]

Occupations.	Years.			
	1882.	1883.	1884.	1885.
Husbandmen, peasants, and shepherds	67.91	47.73	67.43	62.58
Masons and stone-cutters	3.04	3.59	5.06	2.45
Navvies, porters, and other day laborers	13.37	36.41	11.80	11.35
Artisans and operatives	7.84	7.92	10.11	15.34
Business men and manufacturers	1.07	0.57	1.12	1.23
Liberal professions	0.89	0.38	1.12	0.61
Servants	0.35	0.38	0.56	0.92
All other professions	5.53	3.02	2.80	5.52
	100.00	100.00	100.00	100.00

Emigrants from Italy to the United States from 1882 *to* 1885.

Districts.	1882.			1883.			1884.			1885.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Permanent emigration:												
Piedmont	246	93	309	305	85	390	486	138	624	516	141	657
Liguria	416	192	609	653	434	1,087	384	210	594	447	172	619
Lombardy	610	262	872	549	99	648	308	106	414	223	114	337
Venetia	7	4	11	25	7	32	26	16	42	113	98	211
Emilia	23	13	36	107	78	185	103	53	156	127	34	161
Tuscany	316	20	336	453	62	515	160	39	199	166	54	220
Marches	5	2	7	11	3	14	38	1	39	14	2	16
Umbria	5	2	7	4	2	6	5	.....	5	.....	.....	.....
Latium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Abruzzi and Molise	2,381	120	2,501	3,680	145	3,825	699	145	844	1,061	223	1,284
Campania	6,151	1,115	7,266	5,795	887	6,682	1,679	628	2,307	1,641	833	2,474
Puglie	62	8	70	253	260	7	91	23	114	79	10	89
Basilicata	2,269	564	2,833	2,008	507	2,515	1,666	773	2,439	2,346	1,115	3,461
Calabria	1,693	168	1,861	1,884	128	2,012	665	155	820	874	244	1,118
Sicily	789	289	1,079	1,269	465	1,734	987	382	1,369	736	364	1,100
Sardinia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	14,973	2,822	17,795	16,996	3,165	20,161	7,297	2,669	9,966	8,346	3,405	11,751
Temporary emigration:												
Piedmont	6	5	11	6	9	15	9	.....	9	85	25	110
Liguria	105	43	148	22	11	33	33	19	52	57	15	72
Lombardy	35	5	40	83	47	130	47	13	60	39	9	48
Venetia	6	.....	6	12	.....	12	9	.....	9	14	4	18
Emilia	11	.....	11	40	13	53	25	.....	25	10	4	14
Tuscany	2	.....	2	34	5	39	19	9	28	40	4	44
Marches	.....	.....	.....	14	3	17	1	.....	1	.....	.....	.....
Umbria	2	.....	2	1	1	2	2	2	4	1	.....	1
Latium	.....	.....	.....	.....	.....	.....	1	1	2	.....	.....	.....
Abruzzi and Molise	21	.....	21	67	10	77	15	1	16	77	11	88
Campania	196	18	214	153	8	161	33	12	45	121	53	174
Puglie	18	3	21	24	9	33	78	6	84	7	.....	7
Basilicata	197	37	234	476	94	570	85	13	98	2	1	3
Calabria	53	5	58	.....	.....	.....	.....	.....	.....	34		
Sicily	116	14	130	175	34	209	155	28	183	72		
Sardinia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Total	768	130	898	1,107	244	1,351	512	104	616	559		
Grand total	15,741	2,952	18,693	18,103	3,409	21,512	7,809	2,773	10,612	8,905	3,5	

Emigrants from Italy to foreign countries from 1876 *to* 1885.

Districts.	1876.			1877.			1878.			1879.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Permanent emigration:												
Piedmont	1,949	593	2,542	1,714	781	2,495	1,721	695	2,416	3,657	1,591	5,248
Liguria	1,396	489	1,885	1,659	866	2,525	1,752	822	2,634	2,382	1,194	3,576
Lombardy	3,894	2,861	6,755	1,950	1,222	3,172	1,476	885	2,361	3,003	1,304	4,307
Venetia	1,869	1,364	3,233	4,067	3,470	7,537	2,507	1,924	4,431	3,438	2,626	6,064
Emilia	347	122	469	860	317	1,177	785	243	1,028	972	302	1,274
Tuscany	1,209	168	1,377	791	132	923	822	142	964	1,197	219	1,416
Marches	89	63	152	28	28	56	35	20	55	38	12	50
Umbria	5	2	7	.....	.....	.....	.....	.....	.....	1	1	2
Latium	10	5	15	6	3	9	3	3	6	6	3	9
Abruzzi and Molise	58	26	84	340	79	419	373	93	466	1,498	344	1,842
Campania	918	392	1,310	697	330	1,027	1,015	580	1,601	5,092	1,999	7,091
Puglie	92	85	177	17	11	28	85	17	42	38	37	75
Basilicate	845	161	1,006	701	210	911	1,203	353	1,556	4,002	1,764	5,766
Calabria	470	60	530	350	55	405	347	62	409	2,975	580	3,555
Sicily	111	96	207	229	173	402	327	227	554	331	215	546
Sardinia	6	1	7	.....	1	1	7	5	12	2	1	3
Total	13,268	6,488	19,756	13,409	7,678	21,087	12,398	6,137	18,535	28,632	12,192	40,824
Temporary emigration:												
Piedmont	26,461	2,679	29,140	19,579	2,223	21,812	19,786	2,573	22,359	19,752	2,545	22,297
Liguria	1,330	352	1,682	973	276	1,249	728	195	923	1,715	663	2,378
Lombardy	13,338	1,001	14,339	15,442	620	16,062	12,701	532	13,233	11,870	522	12,392
Venetia	29,564	1,751	31,315	25,273	1,719	26,992	24,122	1,936	26,058	24,968	1,763	26,731
Emilia	2,796	142	2,938	2,208	190	2,398	1,927	224	2,151	5,639	420	4,059
Tuscany	4,878	290	5,168	5,157	401	5,558	4,957	416	5,373	6,779	455	7,234
Marches	342	11	353	144	23	167	151	14	165	188	26	214
Umbria	51	2	53	23	5	28	11	2	13	17	3	20
Latium	160	49	209	4	1	5	7	.....	7	7	6	13
Abruzzi and Molise	269	22	291	128	27	155	818	152	970	264	56	320
Campania	1,476	379	1,855	1,414	450	1,864	2,117	769	2,886	1,607	675	2,282
Puglie	157	5	162	256	121	377	324	137	461	307	176	483
Basilicata	64	32	96	176	38	214	603	282	885	.....	.....	.....
Calabria	301	71	372	716	145	861	1,455	279	1,734	158	64	222
Sicily	712	309	1,021	281	84	365	402	109	511	261	81	342
Sardinia	20	1	21	16	3	19	3	1	4	8	12	20
Total	81,919	7,096	89,015	71,790	6,336	78,126	70,112	7,621	77,733	71,540	7,467	79,007
Grand total	95,187	13,584	108,771	85,199	14,014	97,213	82,510	13,758	96,268	100,172	19,659	119,831

Emigrants from Italy to foreign countries from 1876 *to* 1885—Continued.

Districts.	1880.			1881.			1882.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Permanent emigration:									
Piedmont	3,120	1,471	4,591	4,836	2,182	7,018	5,961	3,147	9,108
Liguria	2,190	1,292	3,482	2,292	1,066	3,358	2,409	1,102	3,511
Lombardy	2,597	1,344	3,941	3,981	1,826	5,507	5,916	2,773	8,689
Venetia	2,262	1,618	3,880	1,429	949	2,378	2,534	1,837	4,371
Emilia	925	280	1,205	963	275	1,238	1,183	405	1,588
Tuscany	1,803	322	2,125	2,195	423	2,618	2,198	436	2,634
Marches	58	34	92	186	27	213	574	40	614
Umbria	3	6	9	15	4	19	11	4	15
Latium	8	7	15	2	1	3	4	1	5
Abruzzi and Molise	1,286	348	1,634	1,796	335	2,131	3,582	301	3,883
Campania	5,980	2,395	8,375	7,100	2,381	9,481	9,834	2,517	12,351
Puglie	28	14	42	27	13	40	116	24	140
Basilicata	2,452	1,722	5,174	3,150	1,161	4,311	5,456	1,532	6,988
Calabria	2,130	592	2,722	1,578	458	2,036	8,378	1,151	9,529
Sicily	443	200	640	637	302	939	1,589	672	2,261
Sardinia	.....	4	4	14	3	17	44	17	61
Total	26,285	11,649	37,934	30,201	11,406	41,607	49,789	15,959	65,748
Temporary emigration:									
Piedmont	21,772	3,046	24,815	24,305	3,095	27,400	24,812	4,086	28,898
Liguria	1,406	404	1,810	1,680	355	2,035	2,097	463	2,560
Lombardy	13,196	440	13,636	14,973	445	15,418	13,375	544	13,919
Venetia	27,691	2,089	29,780	29,180	1,679	30,859	30,232	1,761	31,993
Emilia	3,119	301	3,420	4,625	318	4,943	5,173	250	5,422
Tuscany	5,337	434	5,771	6,987	403	7,390	6,229	575	6,744
Marches	158	19	177	126	18	144	99	16	115
Umbria	9	.....	9	3	3	6	14	2	16
Latium	2	.....	2	1	1	2	.....	.....	.....
Abruzzi and Molise	249	52	301	670	151	821	783	69	852
Campania	852	471	1,323	1,166	323	1,489	1,256	500	1,756
Puglie	288	141	429	240	99	339	430	220	650
Basilicata	7	1	8	458	151	609	662	136	798
Calabria	169	61	230	2,204	311	2,515	940	53	993
Sicily	180	61	241	186	18	204	748	206	
Sardinia	6	6	12	37	14	51	112	32	
Total	74,441	7,526	81,967	86,841	7,384	94,225	86,961	8,853	
Grand total	100,726	19,175	119,901	117,042	18,790	135,832	136,750	24,812	

Emigrants from Italy to foreign countries from 1876 *to* 1885—Continued.

Districts.	1883.			1884.			1885.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Permanent emigration:									
Piedmont	4,569	2,024	6,593	6,751	2,096	8,847	7,830	3,031	10,861
Liguria	3,003	1,565	4,568	3,565	1,635	5,200	3,225	1,636	4,861
Lombardy	6,001	2,168	8,169	8,261	2,377	10,638	7,077	2,727	9,804
Venetia	3,291	1,867	5,158	3,752	1,458	5,210	4,403	2,562	6,965
Emilia	921	250	1,171	1,053	310	1,363	1,246	422	1,668
Tuscany	2,687	559	3,246	1,858	443	2,301	2,511	638	3,149
Marches	1,325	99	1,424	3,159	131	3,290	829	184	1,013
Umbria	20	4	24	19	6	25	15	1	16
Latium	4	7	11	4	6	10	5	9	14
Abruzzi and Molise	4,853	384	5,237	2,028	385	2,413	3,942	903	4,845
Campania	11,523	2,484	14,007	5,078	1,909	6,987	8,319	3,396	11,715
Puglie	374	71	445	229	110	339	532	124	656
Basilicata	4,843	1,346	6,189	3,503	1,454	4,957	7,188	2,808	9,996
Calabria	8,251	1,036	9,287	3,609	841	4,450	7,896	1,920	9,816
Sicily	2,103	767	2,870	1,489	581	2,007	1,138	507	1,645
Sardinia	14	3	17	10	2	12	5	.....	5
Total	53,782	14,634	68,416	44,368	13,681	58,049	56,161	20,868	77,029
Temporary emigration:									
Piedmont	19,972	2,854	22,826	17,355	2,794	20,149	14,906	2,938	17,844
Liguria	1,400	250	1,650	906	301	1,207	1,126	284	1,410
Lombardy	13,545	586	14,131	11,816	500	12,316	8,349	491	8,840
Venetia	38,197	2,349	40,546	38,572	2,308	40,880	33,444	2,441	35,885
Emilia	2,811	344	5,155	3,539	278	3,817	3,047	347	3,394
Tuscany	6,815	559	7,374	5,149	628	5,797	7,098	708	7,806
Marches	264	20	284	159	20	179	100	8	108
Umbria	8	3	11	4	2	6	12	3	15
Latium	1	.....	1	1	1	2	7	.....	7
Abruzzi and Molise	3,638	168	3,806	2,347	215	2,562	1,161	210	1,371
Campania	1,371	525	1,896	651	192	843	1,046	364	1,410
Puglie	437	139	576	273	40	313	199	17	216
Basilicata	684	185	869	105	19	124	12	10	22
Calabria	245	14	259	260	13	273	1,006	86	1,092
Sicily	968	202	1,170	318	95	413	382	159	541
Sardinia	107	24	131	88	19	107	187	16	203
Total	92,463	8,222	100,685	81,543	7,425	88,968	72,082	8,082	80,164
Grand total	146,245	22,856	169,101	125,911	21,106	147,017	128,243	28,950	157,193

*Occupations and professions of emigrants from Italy to foreign countries from 1879 to 1885, and proportion.**

Items.	Permanent emigrants.							Temporary emigrants.						
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
hepherds	21,153	18,082	19,375	32,755	37,864	29,309	38,059	27,415	30,332	35,215	36,645	40,449	31,678	31,980
nd other day laborers	3,216	3,979	5,936	8,441	8,301	7,320	7,932	18,287	19,926	23,515	28,747	31,173	28,175	21,496
cutters	1,283	964	1,207	2,784	2,711	2,826	3,505	13,466	13,984	18,212	12,847	14,633	14,505	12,318
atives	4,081	4,141	4,668	6,035	6,099	6,029	8,491	7,963	7,553	6,513	5,931	4,958	4,381	4,015
manufacturers	879	783	865	1,300	1,361	1,287	1,517	1,332	1,294	1,332	1,471	1,123	1,156	986
s	331	415	254	708	463	401	598	767	495	509	626	499	525	485
	379	388	467	819	646	788	1,196	913	631	983	989	865	838	870
	211	391	211	455	307	192	201	1,283	1,131	1,055	835	701	753	831
	38	76	86	115	80	66	104	169	209	215	320	414	438	466
, and nondescripts	77	5	20	63	9	69	11	209	272	388	409	12	222	193
les and professions	916	936	955	1,550	1,528	1,443	1,749	1,369	1,234	1,263	1,467	1,348	1,203	1,095
sions unknown	314	488	268	342	252	369	429	401	203	144	296	266	275	608
	32,928	30,648	34,312	55,367	59,621	50,039	63,822	73,574	77,264	89,344	90,583	96,441	84,149	75,348

PROPORTION PER 100.

shepherds	64.24	59.00	56.47	59.16	63.50	58.57	59.63	37.26	39.26	39.41	40.46	41.94	37.65	42.43
and other day laborers	9.77	12.98	17.30	15.25	13.92	14.63	12.43	24.86	25.80	26.32	31.74	32.32	33.48	28.53	
-cutters	3.90	3.14	3.52	5.03	4.55	5.65	5.49	18.30	18.10	20.40	14.18	15.17	17.24	16.34
ratives	12.39	13.51	13.60	10.90	10.23	12.05	13.30	10.82	9.78	7.29	6.55	5.14	5.21	5.34
l manufacturers	2.67	2.56	2.52	2.35	2.28	2.57	2.42	1.81	1.67	1.49	1.62	1.16	1.37	1.32
ns	1.01	1.35	0.74	1.28	0.78	0.80	0.94	1.04	0.64	0.57	0.69	0.52	0.62	0.64
	1.15	1.27	1.36	1.48	1.08	1.58	1.87	1.24	0.82	1.10	1.09	0.90	1.00	1.16
	0.64	1.28	0.62	0.82	0.52	0.38	0.32	1.74	1.46	1.18	0.92	0.73	0.89	1.10
	0.12	0.25	0.25	0.20	0.14	0.13	0.16	0.23	0.27	0.24	0.35	0.43	0.52	0.62
	0.23	0.02	0.06	0.11	0.02	0.14	0.02	0.29	0.35	0.43	0.45	0.01	0.26	0.26
rs, and nondescripts	2.93	3.05	2.78	2.80	2.56	2.88	2.75	1.86	1.59	1.41	1.62	1.40	1.43	1.45
ades and professions	0.95	1.59	0.78	0.62	0.42	0.62	0.67	0.55	0.26	0.16	0.33	0.28	0.33	0.81
essions unknown														

* Not including children under 14 years of age.

Countries to which emigrants from Italy went from 1876 *to* 1885, *and proportion per country.*

Countries.	Number of emigrants.										Proportion per 100.									
	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
EUROPE.																				
.....	20,534	17,944	18,391	18,617	20,493	20,503	12,101	17,252	22,226	16,962	18.07	18.09	19.10	15.54	17.09	15.09	7.49	16.20	15.12	10.79
.....							8,329	9,535	10,470	10,744							5.16	5.64	7.12	6.84
and	18,655	13,498	10,782	10,401	13,074	10,245	8,476	6,348	5,509	4,583	17.15	13.61	11.20	8.68	10.90	7.54	5.24	3.75	3.75	2.91
.....	34,500	33,333	33,552	39,713	43,172	50,735	53,037	46,768	38,523	33,438	31.73	33.60	34.85	33.14	36.00	37.35	32.83	27.66	26.20	21.27
and Holland	236	134	197	179	203	157	271	543	218	1,386	0.22	0.13	0.20	0.15	0.17	0.12	0.17	0.32	0.15	0.88
.....	9,623	9,058	6,916	6,700	4,277	5,793	7,662	12,376	4,271	4,532	8.85	9.13	7.18	5.60	3.57	4.27	4.74	7.32	2.91	2.88
itain.....	257	560	700	626	469	1,094	512	379	336	486	0.24	0.56	0.73	0.51	0.39	0.80	0.32	0.22	0.23	0.31
Norway, and Denmark....	75	15	7	17	4	39	12	77	29	30	0.07	0.01	0.01	0.01	0.01	0.03	0.01	0.05	0.02	0.02
.....	566	166	393	264	278	437	218	328	214	255	0.52	0.17	0.39	0.22	0.23	0.32	0.13	0.19	0.15	0.16
Portugal.....	886	436	500	587	753	793	1,252	931	580	820	0.81	0.44	0.52	0.49	0.63	0.59	0.77	0.55	0.39	0.53
umania, Greece, and Tur-																				
.. ..	1,038	1,371	949	2,156	1,189	1,436	1,512	3,839	4,707	3,877	0.95	1.38	0.99	1.80	0.99	1.06	0.94	2.27	3.20	2.47
opean countries	.....	.....	.....	744	312	875	348	289	475	1,110	.....	.....	.....	0.62	0.26	0.61	0.34	0.18	0.32	0.71
l for Europe.....	86,879	76,515	72,367	80,004	84,224	92,107	93,930	30,986	87,558	78,232	79.41	77.12	75.17	66.76	70.24	67.81	58.14	58.35	59.60	49.77
NORTH AFRICA.																				
.....	768	616	620	637	758	837	2,213	1,374	850	1,194	0.71	0.65	0.64	0.53	0.63	0.61	1.37	0.81	0.58	0.76
.....	304	282	585	467	260	265	2,235	1,867	637	818	0.27	0.28	0.61	0.39	0.22	0.20	1.38	1.10	0.43	0.52
.....	1,472	385	1,493	1,419	1,390	1,552	3,325	2,882	1,636	3,423	1.35	0.39	1.55	1.19	1.16	1.14	2.06	1.71	1.11	2.18
l for NorthAfrica.....	2,544	1,313	2,698	2,523	2,408	2,654	7,773	3,123	4,123	5,435	2.33	1.32	2.80	2.11	2.01	1.95	4.81	3.62	2.12	3.46
AMERICA.																				
es and Canada	1,411	976	1,993	3,208	5,756	11,868	18,669	21,337	10,847	13,096	.....	0.98	2.07	2.68	4.80	8.74	11.56	12.62	7.37	8.33
lombia, Venezuela, and																				
merica.....		.....	1,941	4,990	4,850	1,779	3,741	4,178	1,289	1,583		14.25	2.02	4.16	4.05	1.31	2.31	2.47	0.88	1.01
.....	14,708	14,238	4,533	7,999	6,080	6,766	9,071	7,590	6,116	12,311	13.52		4.71	6.67	5.07	4.98	5.62	4.89	4.16	7.83
eru.....		222	440	270	188	285	531	317	350	366		0.23	0.46	0.23	0.16	0.21	0.33	0.19	0.24	0.23
f the Plata.....	3,461	5,733	8,645	14,166	13,345	16,947	24,526	26,075	34,016	40,054	1.33	5.78	8.98	11.82	11.13	12.48	15.18	15.42	23.14	25.48
ican countries	.....	.....	3,191	6,442	2,861	3,226	3,154	3,891	2,849	5,080	.....	.....	3.31	5.38	2.38	2.37	1.95	2.30	1.94	3.23
for America	19,610	21,169	20,743	37,075	33,080	40,871	59,695	63,388	55,467	72,490	18.03	21.34	21.56	30.94	27.59	30.09	36.95	37.49	37.73	46.11
ries of Africa, Asia, and																				
.....	238	216	460	229	189	200	164	925	869	1,036	0.23	0.22	0.48	0.19	0.16	0.15	0.10	0.54	0.59	0.66
total.....	108,771	99,213	96,268	119,831	119,961	135,832	161,562	169,101	147,017	157,193	100	100	100	100	100	100	100	100	100	100

The greater number of emigrants from this consular district, as well as from other parts of the Kingdom, is drawn from the rural districts—they being farm laborers, shepherds, and peasants. A considerable proportion of the total number of emigrants to the United States leave the country in the hope of finding work on railway constructions and other public works. Emigrants from the highlands are sometimes small peasant proprietors, but from the lowlands they are generally farm laborers. In this district, as well as in other parts of the Kingdom, emigrants for the United States rarely carry more than from $10 to $30 over and above their passage money, and in many instances it has been found that this amount, including passage money, has been raised by loans at the rate of from 50 to 75 per cent. interest; this of course, is all to be paid from the prospective earnings in America.

In 1882 the Government issued a circular inviting the prefects of the Kingdom to furnish accurate information as to the causes of emigration from their respective provinces and its effect on the economical condition of the country.

Categorical answers to the following questions were requested:

(1) Are people driven from the country by destitution alone, or are they influenced by speculators interested in marine transportation, or by the paid agents of foreign Governments or emigration companies?

(2) Is it true that in many instances entire families of small peasant land-owners sell all their possessions to enable them to emigrate?

(3) What positive and practical effect has this emigration produced on wages, on the money value of land, and in general on the agricultural economy of the communes or provinces during the last ten years?

(4) What changes in the direction of emigration have taken place during the decade?

(5) To what classes of society do emigrants from the several districts belong? Are they land-owners, farmers, or laborers who emigrate for want of employment?

The answers of the prefects were nearly unanimous in ascribing emigration to three causes, namely, destitution, lack of work, and a natural desire to improve their condition.

It appeared that during recent years there have been various illicit means used for inducing persons to emigrate, such as flattering advertisements, letters, offers, in the interest of persons or swindling companies, of from $4 to $6 per emigrant to persons who can influence emigration. Changes in the direction of emigration have been slight. It was found that nearly nine-tenths of emigrants to all countries were drawn from the agricultural classes.

Cases of land-owners who sell their possessions to enable them to emigrate were found to be comparatively rare, and it was found that emigration had not produced any appreciable effect on wages, or on the money value of land, neither on the economy of the country in general. Compulsory military service, onerous taxation, and strikes have had practically no influence on emigration to the United States.

WAGES AND COST OF LIVING.

As to the wages of agricultural laborers, from whom the chief number of emigrants to the United States from this district and from Italy are drawn, I may say that near Rome and other large towns they receive from 20 to 60 cents per day, not including board and lodging, and in [illegible] Artisans are paid from

The lowest cost of living to the laboring classes in the city of Rome and its environs would be as follows:

Breakfast.—A loaf of coarse wheat bread, unsalted, weighing 12 ounces, 2 cents; fruit in summer and cured cheese in winter, 1 cent; total, 3 cents.

Dinner (at noon-day).—One-half loaf of bread as above, 1 cent; a stew made from scraps of tripe, lungs, and the like, or soup prepared with garlics or onions, pork fat, or lard thickened with garlics, olive-oil, or grease, 3 cents; total, 4 cents.

Supper.—Same as breakfast, or varied with salad and bread; total, 3 cents.

Lodging.—Single person, at 60 cents per month; per day, 2 cents.

Grand total of cost of living and lodging per day, 12 cents.

Clothing is a small item of expense, and laborers earning small amounts will always undertake odd jobs to procure extras or an occasional glass of wine.

MORALS.

The civil marriage is the only marriage recognized by Italian law. The Pope alone can dissolve the bonds of matrimony, but rarely exercises this power.

In recent years, on an average, out of the total number of children born in the Kingdom, 92½ per cent. have been legitimate and 7½ per cent. illegitimate.

I am satisfied that there is no emigration to the United States of chronic paupers or insane persons, either from this district or other portions of the Kingdom, and also no assisted emigration.

The Government does nothing to prohibit or restrict emigration. Its attitude is simply that of watchfulness to prevent the swindling or deceiving of ignorant persons.

No special rates of fare are offered by any company or companies in this district. The fare usually paid by third-class passengers from Italian ports to New York is the regular steamer rate of about $30 for each person.

In the case of emigration to the United States, the large number of Italians who have there found what is for them lucrative employment has greatly influenced the current of emigration in that direction during the past few years. The steamers of the Italian General Navigation Company, known as the "Florio-Rubattino" steamers, now plying direct between Italian ports and New York, have also influenced considerably in increasing the number of emigrants, especially from the southern portion of the Kingdom.

A proof of this may be found in the increased number of emigrants to the United States directly following the establishment of this line in 1879.

Emigration to the United States from this consular district is chiefly through the port of Naples; for other portions of the Kingdom it is through the ports of Naples, Palermo, and Genoa. A comparatively small number embark from France at the ports of Marseilles, Bordeaux, and Havre, and a few from the ports of Germany and England.

As to the habits and morals of the emigrants to the United States from the northern and central portions of Italy, both men and women are sober and industrious, and as a rule trustworthy [illegible] are generally

prevalent. The men are frequently hot-tempered and quarrels often end in bloodshed. They are, however, seldom addicted to drunkenness, and the women are regarded as chaste. In spite of the prevalent opinion that the Southern Italian laboring classes are lazy, they are, like the rest of the Italians, a hard-working and industrious people, and endure hardship and adversity with great patience.

WILLIAM L. ALDEN,
Consul-General.

UNITED STATES CONSULATE,
Rome, Italy, August 2, 1886.

MILAN.

REPORT OF CONSUL CROUCH.

The following statistics are taken from the reports of the department of agriculture, industry, and commerce, which assumed charge of this branch in 1876. The statistics previous to this time are practically without worth. Even those given below are defective and not entirely reliable, for the sources of error, especially in Northern Italy, are very great, as a brief description of the methods employed will show.

The mayors of the various communes into which the provinces are subdivided, report each year the number of emigrants from their communes, the character, whether the emigration is temporary or permanent, the trade or occupation of the emigrants, and other facts of like nature. For their information they rely mainly upon the register of the passports, with which each emigrant is expected to provide himself before his departure, and this information they supplement by any facts which may come under their personal observation or be reported to them from unofficial sources. Such a system may be sufficiently exact when the emigration is from sea-ports, but in the facility with which the inhabitants of Lombardy, in the search for employment, pass over the borders into Austria, and especially Switzerland, and from there, or through Piedmont, into France, is at once apparently a very fertile source of error. Moreover, emigrants passing into these countries in search of temporary employment are very often induced to emigrate to America. The result of such indirect emigration is seen in the comparison of the statistics of Italy and the United States for the same period:

Total emigration to the United States from Italy.

Source of information.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
Italian statistics	1,441	976	1,993	3,208	5,756	11,868	18,669	21,337
United States statistics	2,981	3,666	5,392	9,043	12,782	20,107	29,437	29,537

It is evident from this comparison that only the statistics of recent years can be accepted as of any value.

In the statistics for Lombardy previous to the year 1880, emigrants to the United states and the adjoining countries, and to the South

to the United States, with the percentage which the number to the United States bears to the whole number. This might afford some information, if the comparison made above did not demonstrate the unreliability of the Italian statistics for those years.

Years.	Lombardy to America.	Italy to America.	Italy to United States.	Per cent. to the United States.
1876	7,391	19,610	1,441	7.4
1877	3,318	21,169	976	4.6
1878	2,746	20,743	1,993	9.6
1879	4,478	37,075	3,208	8.9
1880	3,850	33,080	5,756	17.4

Commencing with 1880 the number of persons leaving Lombardy for the United States, according to Italian statistics, is as follows:

1880	173
1881	536
1882	912
1883	778
1884	*240
1885	355

CLASSES TO WHICH THE EMIGRANTS BELONG.

In general, the largest contingent of emigrants is supplied by the agricultural classes. Among these it is the class of small tenants and the small proprietors, when the products of their bits of land have become absolutely insufficient to support their families, that emigrate to America, more especially, however, to South America. The day-laborer is usually unable to emigrate for lack of means. And, in general, the attachment of these poor people to their homes is so great that they endure the utmost privations rather than leave them, and when persuaded or driven to emigration, it is usually with the intention of returning.

In addition to the agricultural classes which supply the largest number of permanent emigrants, is especially noticeable the class of stone masons. The records of the booking agents in Milan show that the majority of emigrants to the United States so far this year (1886) belong to this latter class. They go to America in the spring months, and being excellent workmen find employment readily at good wages, and are able to return with their earnings, as a majority of them do, and spend the winter comfortably at their homes. The following spring very frequently finds them on their way back to America.

The remainder of the emigrants consist of domestics, waiters, and operatives of the various trades.

CAUSES OF EMIGRATION.

The general causes of emigration are, in a word, overpopulation and high taxes. As to compulsory military service, it is claimed that the desire to avoid it is not a strong factor. It is, however, by no means without effect in this direction, and the desire of the father to see his sons freed from the

The first impulse to emigration is the discontent among the lower classes with their own condition, which is steadily becoming worse. The cost of living has increased immensely in the last few years, with the great increase in taxes. Rents are higher, while the value of the produce of the land is kept down by foreign competition. The large development of industrial interests in certain portions of Lombardy has not sufficed to remedy these evils, and the final resource is emigration. This takes especially the form of temporary emigration, one or more members of the family passing into the neighboring countries where employment is to be had at better wages. The discontent among these people is further increased by the growing knowledge of the vastly better economic conditions in the countries of the New World, by the example of emigrants returning with comparative wealth, by reports and money sent from friends and relatives who have thus sought and found fortunes, and also by the glowing and exaggerated descriptions of the agents of steamship lines, land companies, and similar interested parties.

The immediate cause is usually the failure, more or less complete, of the crops for the year, and the consequent inability to pay the rent and the heavy taxes. It is noticeable, in this connection, that these people usually emigrate in the autumn months, when the contracts terminate.

Among the operatives the emigration is determined by the want of occupation at home.

In addition to these causes of general application, there are others of a local nature, varying with the different topographical and economical conditions of the different provinces. The northern part of Lombardy is mountainous, sparsely settled, and less fertile. The inhabitants, for the most part, are engaged in agriculture, and belong to the class of small proprietors. Other interests of some importance are quarrying, and, to a small extent, mining. The most important agricultural product is wine. There is a large temporary emigration to France, Switzerland, and other neighboring countries, where the artisans and the surplus of agricultural laborers find employment. The permanent emigration was until 1881 very small, but two or three seasons of inclement weather and the ravages of the peronospora made a perceptible difference. Thus, for instance, from the province of Sondrio, with a population of 120,534, the number of permanent emigrants for the years 1880, 1881, 1882, and 1883 was, respectively, 169, 252, 324, and 810.

The intermediate zone, consisting of hilly country and the land sloping to the lakes, enjoys a favorable climate, is very fertile, producing wine, fruit, and silk cocoons in abundance, and has large industrial interests, especially in the various branches of silk manufacture. Emigration is influenced by the causes which affect the crops, such as the diseases of the vine, which in the past years has done great damage; further by the greater or less demand, and consequently higher or lower prices, for raw silk, the main article of export, and by the greater or less prosperity of the manufacturers.

The southern portion of Lombardy consists of low, level land in the valley of the Po, is of the greatest natural fertility, immensely increased by the perfect system of irrigation in use, and sustaining a population which, for a strictly agricultural district, is probably the most dense in [illegible] complete failure of which is practically impossi-

pensated by the growth of other industries, and a continuous and increased emigration may be expected in the future.

SOCIOLOGY.

In Lombardy the most numerous and important class are those engaged in agricultural pursuits. Among these may be distinguished: (1) Land-owners, very largely peasant proprietors; (2) metayers, who hire the land on certain peculiar conditions, paying half the taxes and turning over to the owner half the products; other proportions than the half are also in use; (3) tenants paying a fixed rent, including also a relatively small number enjoying hereditary privileges in this respect on certain estates; (4) the agricultural laborers.

The relative proportion of the first three classes is in the order in which they are named. The fourth class is more numerous than the other three combined. The proprietors, metayers, and tenants all possess a certain capital, however small. The agricultural laborer is entirely dependent on the small wages he receives.

Next in numerical importance are the operatives in the various branches of manufacturing, especially in the silk industries. The silk, cotton, and woolen factories employ largely female labor, the proportion being over four females to one male. The competition of labor in these districts maintains low wages, but on the whole this class is relatively in better condition than the agriculturists.

The food of the working classes consists mainly of *polenta* (boiled Indian meal) and bread of inferior quality, with rice-soup, and among the better classes, macaroni, with greens, cooked with butter, cheese, lard, or milk. Among the poorer agricultural classes, especially in years of bad harvests, the food is almost exclusively polenta, frequently made of diseased and inferior Indian corn. In this connection it is interesting to note that the peculiar disease, pellagra, which is only known to exist in certain portions of Southern Europe, and which the scientists are agreed to consider a chronic poisoning by a substance generated in diseased corn, affects a greater proportion of the population, viz, in 1879, 31.7 per thousand, than in any other section of Italy.

The clothing is made of the inferior grades of mixed cotton and woolen goods, which are to be had very cheap here, and underclothing of cotton.

During the winter, which is more severe in Lombardy and Piedmont than in any other part of Italy, the poorer classes suffer much from exposure. Fuel is very expensive, for wood is scarce, and the coal used, being imported, and subject accordingly to the expense of transportation and customs duties, is also very dear. The poorer classes accordingly go without fires, and it is customary even among classes of a much higher grade socially, either to dispense with fire entirely, or to confine its use to the narrowest possible limit, and to live in imperfectly heated rooms. This is but one example of the economies to which these latter classes—that is to say, the smaller Government officials, the employés in banks, mercantile establishments and similar institutions, in fact, that class who receive a small fixed salary within limits of which they must live—are compelled to resort to keep up appearances.

The dwellings of the poorer classes vary somewhat in accordance with the particular

classes, in regard to their dwellings as well as their persons, is decidedly low.

The morals of the peasantry are better than might be expected from their manner of life, and will compare favorably with that of any similar class in Europe. The great majority are married, and the marriages are at a comparatively early age. The number of illegitimate children is not large. As is usually the case, the morality of the rural districts is decidedly superior to that of the cities, the residence of the so-called better classes. Indeed, these latter seem to have a freer and broader conception of the marital relation than prevails in the United States, as divorce statistics would undoubtedly show, if divorce were permitted here by the state and by the church. As it is, only legal separations are allowed. Statistics of Milan show that this was asked for from the courts in 1882, 1883, and 1884, respectively, by 240, 231, and 241 persons. The results in 1884, for instance, were: 22 conciliations, 79 separations by mutual agreement and consent, 98 separations in which the conditions were determined by the court, 27 cases abandoned, and 15 cases still pending at the end of the year.

The number of marriages in the same year, 1884, were 2,774, in a population of 349,597, or 1 to every 122.30 inhabitants. Statistics of births show a total for the year of 11,496, of which 1.200 were illegitimate, or 10.18 per cent., which is about the percentage of the two preceding years. This is a low percentage in comparison with Lyons, Bordeaux, Brussels, Paris, with 24 per cent. to 28 per cent., to say nothing of Munich, Vienna, and St. Petersburg, where nearly 50 per cent. of the births are illegitimate.

EDUCATION.

A large share of the rural population is still in a state of almost absolute ignorance. A belief in witchcraft and the baneful influence of the "evil eye" still lingers, especially in the out-of-the-way districts. In this latter regard, however, the peasant population of Lombardy has made great advances, and in comparison with other portions of Italy is in a state of enlightenment. Education is making rapid strides, and the school system, inefficient and faulty as it is, is gradually making way against the obstacles and opposition it encounters.

The following figures, which I have computed from data furnished by the census of 1881, will give an idea of the condition of education in Lombardy as compared with other sections of Italy. The percentage of the population above the age of ten years unable to read and write was at the time mentioned 36.3 per cent. High as this figure is, Piedmont is the only other division of Italy with an equally low figure. The average per cent. of the population of the whole Kingdom of Italy above the age of ten, unable to read or write, was 61.2 per cent., and in the provinces of the former Kingdom of Naples, which included the greater part of Southern Italy, it was 78.9 per cent. These few figures show that Lombardy is much further advanced than the remainder of the Kingdom, with the single exception of the neighboring province of Piedmont. To show the present condition of education in North and South Italy, and what may be expected from the generation now arriv-

other Italians in energy and perseverance. Drunkenness is an exceptional occurrence, for the general use of the native wine, which is plentiful and cheap, seems to exclude the desire for distilled liquors. The prudence of the people is also evident, from the fact that, in spite of the exceedingly low reward of labor, they succeed in good years in laying up a little money. Thus the amount of money deposited in the savings-banks exceeds that of almost every other section of Italy. The prevailing religion is that of the Catholic Church.

The Lombards are comparatively free from hereditary disease. The proportion of deaths from consumption is about the same as that of the United States. Syphilitic diseases occur in about the same frequency as in the middle European states, in contrast to Southern Italy, where the proportion is much higher. Of other diseases not hereditary, reference has been made to pellagra, dependent upon an exclusive use of diseased corn. Two other diseases, or rather two manifestations of the same disease, which, like pellagra, occur in greater frequency than in the remainder of Italy, and in a very high proportion as compared with other countries, are struma, or goître, and cretinism, a form of idiocy. Certain districts of the province of Sondrio, in Lombardy, give a proportion probably as high as is found anywhere in the world. It will be remembered that this disease is held to be dependent on the geological formation and the condition of the soil and water, and that the children of emigrants from the affected localities remain free from the disease.

In considering the Lombards as emigrants to the United States, with regard to the question of assimilation, a word as to their race and the climate of their country may not be out of place. It is to be remembered that the inhabitants of Lombardy and Piedmont are a mixed race, of Gallic stock, with an admixture of blood of the Italian tribes, and also a considerable admixture of Germanic blood. These Gallic or Celtic tribes, descending upon Northern Italy about the sixth century B. C., conquered and expelled the original inhabitants, offered a stubborn resistance to the expanding power of Rome, and formed under the emperors the bulwark of the Roman power. At the beginning of the Germanic invasions they were conquered, and their country taken possession of by Longobardians, or Lombards, a German tribe, who mixed with and were gradually absorbed by the superior number of their subject people. The events of the following centuries brought also a certain proportion of Germanic blood. From these facts it is apparent that they stand much nearer to the Americans, a Germanic people with a very considererable admixture of Celtic blood, than the other inhabitants of Southern Europe, and hence are more likely to be assimilated easily and to have no deteriorating influence upon the race.

The climate of Lombardy and Piedmont differs decidedly from that of the remainder of the peninsula. Shut out from the sea and inclosed by the Alps and the Apennines, Northern Italy possesses a so-called continental climate, not unlike that of portions of the United States. The summers are hot and dry, the winters cold. The average temperature in Milan is: Spring, 59.38°; summer 71.42°; autumn, 47.82°; winter, 37°. More attention might be given to the climate to which emigrants are accustomed in directing the stream of immigation. A large number of the immigrants land at Castle Garden with no fixed objective point, but follow the advice they receive from the officials there. Colonists of course will

DEPORTATION OF [CHRONIC] PAUPERS OR [CHRONIC] INSANE PERSONS—"ASSISTED" EMIGRATION.

I have not been able, even through careful and cautious inquiry, to learn of the deportation of any chronic paupers, or insane persons, or of any "assisted" emigration, except where the assistance has come from relatives already in America. It is common enough for the head of the family to emigrate alone, and, as soon as he has established himself, to have his family follow. Laborers, too poor to emigrate, often receive help from their relatives in America, in which case occupation is frequently provided for them beforehand. These belong for the most part to the class of agricultural laborers, dependent entirely upon their daily wages.

I have called attention above to the unusual prevalence of cretinism in certain sections of Lombardy. In this respect they bear a strong resemblance to certain Swiss cantons, from which the attempted deportation of cretins is notorious. It might be well to bear this fact in mind where emigrants land from this part of Italy.

ATTITUDE OF THE GOVERNMENT.

The attitude of the Government towards emigration is nominally indifferent. Emigrants are expected to provide themselves with passports, which entails a slight expense. Even this is avoided easily by emigrants from Lombardy, who leave by the St. Gothard, passing into Switzerland, and thence to the United States, inasmuch as no passports are required in the former country. On the whole, however, it must be said that emigration is not looked upon with favorable eye by the Government. Nevertheless, in certain districts the overpopulation is so evident, that the desirability of emigration is unwillingly admitted. Where emigration takes place the influence of the Government is used to dissuade the emigrants from going to the United States, and to turn them towards South America. The excuse is that in the United States the Italians disappear in the great mass, and are completely lost to their country, whereas in South America, where they form a considerable part of the population, the national sentiment is preserved, and the commerce with Italy extended.

PRIVILEGES OFFERED BY GOVERNMENTS.

As has been frequently said, the bulk of the emigration is towards the South American states. The inducements and conditions are as follows:

For Brazil: A considerable reduction of fare is offered intending colonists. They are received at Rio Janeiro, and lodged free of expense until their departure for their destination, to which they are conveyed gratis. To each is assigned a lot containing 30 hectares, or 74.13 acres, for which they pay 91 cents to $3.67 per acre. Payment is made either on taking the land or in installments, commencing not later than the

acre. Payment is to be made in fifths at the end of each year, with complete title at the fifth payment.

In Uruguay and Chili the conditions are substantially the same. Chili offers actual settlers a reduction of fare, and loans them farming utensils and beasts of burden.

Thus the conditions, on the whole, are inferior to those offered by the United States. Inasmuch, however, as agents of steamship companies and of these governments have diffused a knowledge of these conditions, which to the Italian seem very favorable, while the conditions offered by the United States with regard to land have remained unknown, the effect on emigration must have been favorable to the former countries and unfavorable to the latter. In addition, there is the greater affinity of race and language in the former countries, and the certainty of meeting compatriots, and the favorable reports sent home by the latter.

CONCLUSION.

During the years preceding the final liberation of Italy from Austrian dominion a large number of persons were obliged to leave their homes for political reasons. A considerable portion sought refuge in the United States, where many made their permanent homes. These belonged, of course, to the very best classes of the land. At present, however, the emigration is confined almost entirely to the peasantry.

The emigration to the United States has not been large, but in late years it has shown a tendency to increase. The competition between the steamship companies has brought about an increased exertion on the part of the transatlantic companies, especially the lines from Havre and Antwerp, to secure passengers, and they are spreading a knowledge of the conditions offered by the United States with some effect. Free land is a great inducement, and together with the greater accessibility of the United States, and the lower fare, is beginning to turn the emigration more in that direction.

Another reason to expect an increased emigration lies in the fact of overpopulation. This, as I have explained, has led to a large temporary emigration, especially into France. But the competition of these people who work for lower wages has given rise to a feeling of hatred towards them on the part of the French laborer, and to constant conflicts and ill treatment. It is not improbable that sooner or later the French Government will be obliged to protect its laborers against Italian competition. When this occurs, and these people are deprived of the resource of temporary emigration, a large increase in the permanent emigration will be the result, and the United States will undoubtedly share in the increase.

HENRY C. CROUCH,
Consul.

UNITED STATES CONSULATE,
Milan, October 4, 1886.

THE NETHERLANDS.

AMSTERDAM.

REPORTS OF CONSUL ECKSTEIN.

I.—EMIGRATION FROM HOLLAND TO THE UNITED STATES.

Prior to the year 1881 there does not appear to have been any control held or record kept from which the number of Netherlanders from this consular district or from this country who have emigrated to the United States could be ascertained and reported.

I am, however, in position to furnish statements showing the number of emigrants of all nationalities who have taken ship in Dutch ports from 1873 to 1885, each year, and their destination, as follows:

Number of emigrants.

Years.	Men.	Women.	Children.	Total.
1873	1,123	818	1,926	3,867
1874	316	226	500	1,042
1875	1,175	556	399	2,130
1876	1,220	693	489	2,402
1877	1,190	696	517	2,403
1878	1,436	779	568	2,783
1879	2,347	1,186	1,131	4,664
1880	5,904	3,166	2,805	11,875
1881	13,805	7,379	7,926	29,110
1882	17,441	8,240	8,640	34,321
1883	10,089	4,380	5,174	19,643
1884*	2,501	1,130	981	4,612
1885*	1,642	645	555	2,842

* The figures covering the years 1884 and 1885 in the above statement represent only the number of emigrants which took ship at Amsterdam during those years.

Destination of emigrants.

Years.	United States.	South America.	Australia.	Africa.	Total inclusive of other countries.
1875	2,091	13	17	9	2,130
1876	2,344	13	21	24	2,402
1877	2,252	31	53	46	2,403
1878	2,671	21	67	24	2,783
1879	4,529	25	83	27	4,664
1880	11,695	34	115	31	11,875
1881	28,782	77	93	158	29,110
1882	34,157	31	74	59	34,321
1883	19,354	81	15	59	19,643

In 1881 a Government board for superintending the passage and carriage of emigrants entered upon its duties at Amsterdam and Rotter-

[illegible] was es-

Amsterdam and Rotterdam, and thus benefit the local steamship companies and otherwise foster the interests of those places.

The chief officer of the board at Amsterdam, one D. Van Ketwich, is personally well known to me, and known to me as a most efficient and conscientious person.

Since then a very good control has been and is held, and statistics of emigration are kept and constantly improved.

To Mr. Ketwich I am indebted for the information contained in the following statements; the figures in them are extracted from the books in his office.

Tabular statement exhibiting the number of Netherlanders who emigrated from Amsterdam to New York or to the United States during the last five years.

Years.	Men.	Women.	Children, one to ten years.	Infants.	Total.
1881	1,749	1,090	1,089	275	4,203
1882	1,954	1,165	1,264	302	4,685
1883	1,089	735	688	197	1,709
1884	556	353	330	94	1,333
1885	372	215	168	31	786

The number of emigrants as given in the foregoing table were not all from this consular district, but from that of Rotterdam as well, and on the other hand it is most likely that about a similar number belonging and coming from this district depart from Rotterdam for the United States.

The great falling off in the number of emigrants from this country to ours during the last three years forms a noteworthy feature as relating to the matter in hand, and I endeavor to give in this place the best explanation for it that I can.

I feel justified to say, in the first place, that it has not been owing to favorable surroundings or prosperous conditions prevailing in Holland during that period of time, but that, on the contrary, nearly all material interests were, and particularly in 1884 and 1885, in an exceptionally unsatisfactory state in this country.

What, then, caused the decline in emigration?

I answer, that to me it seems to have been caused, in part, because that many parties anxious to come to our shores lacked the required means for accomplishing that object.

The facts that less favorable accounts were received here during those years respecting the general state of material affairs in the United States, and that less substantial assistance reached here from relatives on our side to enable parties to come on, had also much to do with the decline in emigration from this country.

Again, the labor difficulties which induced our Government to adopt certain measures restricting indiscriminate emigration have not only had the effect of keeping really objectionable persons from coming to the United States, as certainly is desirable, but they have also had the effect of preventing quite a number of unobjectionable, perhaps desirable, persons to seek homes amongst us.

I base this statement upon the fact of having been applied to for information a number of times by intending emigrants, against whom there could have existed no

This matter may deserve the special attention and consideration of our Government, as what I am saying about it may apply to other countries as well as to Holland.

My attention has also been called to the further fact of the great depreciation in the price of land suitable for farming and dairy purposes during the past few years, which presumably led to purchases in many cases by parties who under ordinary or other circumstances would have emigrated to the United States.

CLASSES WHICH SUPPLY THE GREATEST NUMBER OF EMIGRANTS.

The superintendent of emigration has kept a classified record showing, so far as practicable, the vocation of the emigrants who left this port for the United States in 1884 and 1885.

The record covers emigrants of all nationalities, and a correct copy of it is as follows:

Emigrants who left Amsterdam for the United States.

Vocations.	1884.	1885.
Farmers	313	490
Laborers, country and town	1,506	688
Merchants, clerks, book-keepers, &c	92	160
Artisans amd mechanics	293	336
Men*	313	28
Women*	1,114	585
Children up to ten years of age	735	443
Infants	246	112
Total	4,612	2,842

*The numbers of men and women as put down in the above statement without any trade or occupation are explained to me to have consisted of old men and women in some cases, more generally, however, of boys and young men who had not yet chosen any calling, and as to women they are said to represent housewives who, together with their unmarried daughters, had the care of the families.

I am assured by the superintendent of emigration here, than whom no one has more accurate knowledge on the subject, that the agricultural class furnishes the principal contingent of the emigrants from Holland.

CAUSES OF EMIGRATION.

The Netherlanders are anything but a migratory or roving sort of people. They hold in high honor everything historical and traditional relating to and which sheds any luster or reflects any credit upon the nation, and of which there is a great deal, as is universally acknowledged, and they, furthermore, are most sincerely attached to the existing and principal national institutions.

It can well be imagined that under such circumstances emigration from the country is but rarely undertaken for insufficient or trivial cause or causes, but is more generally only resorted to when fair prospects exist that those about to give up their homes permanently to settle themselves in the United States, or in any other foreign country, will by so doing greatly improve their chances for bettering their con- with them, as well as

to the United States, what there has been of it and is, consisted and consists hereof: "That under any wise normal conditions prevailing in our country, when commerce and trade, manufacture and agriculture are flourishing, or only fairly prosperous, the chances there for the newcomers, especially if intelligent and industrious, are generally considered to be, and in my opinion really are, far superior to what they are or would be in Holland at any time to earn a competency or accumulate wealth."

Thus it is that emigration is ordinarily more influenced and increases or decreases according as favorable or unfavorable news respecting the economical and social conditions of the United States is received and circulated here, than it is affected by the local or homestate of affairs.

To a certain but only very limited extent other causes underlie the emigration from this country, but it can be said that neither military service, taxation, strikes, or even surplus population bring about much of it.

MILITARY SERVICE.

It would seem to show how little real compulsion there is or can be in compulsory military service in Holland, when, in this place, I give a translated extract from a war department circular, issued in February, 1873, containing certain instructions to the military authorities, which are still in force and carried out, and wherein the minister says as follows:

With regard to soldiers on furlough who may desire to emigrate with their families to North America, and who, if they were obliged to remain behind, might lose their means of subsistence, it appears to me desirable to deviate from the course hitherto pursued. I am the more induced to do this because, in my opinion, such a measure cannot be deemed to militate against the interests of the service. Besides, experience teaches that those soldiers who find themselves in such a situation generally leave the country without leave. The consideration that they would consequently be regarded as deserters would seldom deter them, as they would go without any intention to return to their fatherland. A great number owing military duty, now marked on the books as deserters, belong to this category.

I have, therefore, resolved for the future not to refuse to soldiers on furlough, who are not called for active service, and may be at any time situated as above stated, the permission to emigrate to North America; with this proviso, however, that use shall be made of such permission, in each case, within one month of the date of its having been granted, after which period it shall be considered as lapsed. Nor shall such soldiers, before their departures, be exempted thereby from any obligations or duties towards the army.

The law of Holland of August 19, 1861, which relates to the organization of the army and regulates the military service is, it seems to me, altogether very liberal. Here follow a few translated extracts from it:

The strength of the army is not to exceed the number of 55,000 men.

The army is to be organized, so far as possible, through the enlistment of volunteers. In default of sufficient volunteers for the army the same is to be completed by conscription of the inhabitants who have entered upon their twentieth year.

There is to be a yearly levy which is not to exceed the number of 11,000 men.

It is optional with every one either to render service personally or to furnish a substitute.

The term of the service is five years.

Mustered-in men are to be kept under arms for military exercise and duty during the whole of the first year of their term of service, if found necessary.

In ordinary times the army assembles once annually to receive instructions in the manual of arms and to be inspected during a period not to exceed six weeks, unless it be deemed advisable to dispense entirely or partially with

Neither conscripts nor

TAXATION.

Concerning the matter of taxation in Holland I shall also furnish a few figures, leaving the reader to infer from them whether it is or ought to be considered onerous or otherwise as compared with what taxation is in other European countries and in the United States.

According to a statement published last year by the Association for Statistics in the Netherlands, the product of the principal taxes per head of the population was at different periods, from 1850 to 1884, both inclusive, each year as follows, viz:

Year.	Florins per head.	Year.	Florins per head.
1850	18f., 50c.	1870	20f. 32c.
1855	18 72	1875	23 94
1860	18 08	1880	25 29
1865	18 29	1884	24 41

The foregoing statement comprises direct taxes, such as ground tax, personal tax, and licenses, import duties, excise duties on the articles of sugar, wine, spirits, salt, soap, beer, &c., and certain indirect taxes, such as stamps, registration, and succession duties, &c.

In a series of very ably written lengthy articles from the pen of a gentleman at Leyden, said to be an eminent authority, published in the principal paper of this city, and upon the subject of, "What the workman of the Netherlands pays in taxes," a result is arrived at which the author states as follows, viz:

If we sum up what is said herein and in formerly published articles, then is shown, calculated for Leeuwarden, what proportion of the taxes are borne and paid by workmen.

It must not be overlooked that the computation has been made upon low estimates, and in more than one respect too low, as for instance import duties are taken note of only on the articles of tea and petroleum, whereas other dutiable articles are consumed by the working classes of the population.

Workmen earning from 5 to 7 florins per week pay excise duty, 11.23 florins per annum; import duty, 2.67½ florins per annum, and personal tax, 3.28½ florins; total, 17.19 florins, being 5½ per cent. on their income.

Workmen earning from 8 to 10 florins per week pay excise duty, 11.23 florins per annum; import duty, 2.67½ florins per annum; personal tax, 6.84½ florins, and capitation tax, 5 florins; total, 25.75 florins, being 5½ per cent. on their income.

Workmen earning from 11 to 13 florins per week pay excise duty, 11.23 florins per annum; import duty, 2.67½ florins per annum; personal tax, 14.96 florins, and capitation tax, 8 florins; total, 36.86½ florins, being 6 per cent. on their income.

Such is the result at which we have arrived—5 or 6 per cent. on their income the workingmen pay in taxes.

Few if any words are necessary to disapprove hereof; the figures speak for themselve. We ought to let these dumb and yet eloquent witnesses arouse us to the necessity of removing this burden from the shoulders of the working people.

There are those who are better able to pay than the workingmen in these times.

If we cannot make them richer, let us cease to impoverish them.

STRIKES.

It may be remarked that

The condition of most of the industrial interests of this country during the last two years, 1884 and 1885, has been such as to cause the workmen more generally "to strike for work," as it were, than to strike in order to compel an increase or prevent a reduction of wages, for shorter working hours or for anything else.

The unfavorable and unsatisfactory situation in which the working and laboring classes have been placed, their consequent discontent, and such troubles and slight disturbances as have taken place, have all been caused more particularly on account of "great scantity of work" than by anything else.

I remember no strikes being reported in 1885. During the present year, 1886, I have heard of only two; one at Enschedé and another at Maastricht.

Regarding the former, I quote from a letter to me received on the subject from Messrs. van Heek & Co., mill-owners at Enschedé, who say:

> We beg to say that the only strike that occurred in our town and neighborhood in the textile manufacturing trade, during a great many years, has just taken place in a weaving shed in this town; commencing on the 1st of April and ending, after four weeks' duration, on the 28th of that month.
>
> About 200 of the weavers out of a total of 250 struck for a re-establishment of their former rate of wages, which, in consequence of the indifferent state of the cotton trade, had been reduced by about 10 per cent. in February last.

The men returned to work without accomplishing their object. Those who were identified with being most active in bringing on the strike were not taken back.

Respecting the other strike, which took place in the glass and earthenware works of Tetrus, Regout & Co., at Maastricht, the firm wrote to me as follows:

> The strike was of no importance. Of the number of 2,800 people we employ, only 180 struck during four days, with the result that about 20 went abroad, and when the others came back to work we admitted them, with the exception of about 30 of them, whom we would not have back.

It is not the impression of those here well able to judge that Holland has any considerable surplus population, or is overpopulated.

However, to afford an opportunity to the reader of this report, or to the student of social statistics or political economy, for purposes of comparison with other countries in Europe and the United States, I add hereto several tabular statements showing the area of this country, its population, and the density of the same.

The following statement shows the area of each province and of the whole of the Netherlands, according to the census of 1879, in hectares:

Provinces.	Hectares.	Provinces.	Hectares.
North Brabant	512, 832	Overyssel	334, 515
Gelderland	508, 097	Groningen	229, 761
South Holland	302, 163	Drenthe	266, 268
North Holland	276, 977	Limburg	220, 426
Zeeland	178, 506		
Utrecht	138, 402	**Total area Netherlands**	**3, 299, 992**
Friesland	332, 044		

Statement showing the population of each province and of the Netherlands on the 1st of January, 1885, according to the registers of population.

Provinces.	Population.	Provinces.	Population.
North Brabant	491, 023	Overyssel	285, 280
Gelderland	490, 905	Groningen	265, 687
South Holland	878, 894	Drenthe	124, 160
North Holland	761, 772	Limburg	249, 018
Zeeland	193, 965	Total population Netherlands	4, 278, 272
Utrecht	206, 702		
Friesland	330, 866		

In 1830 the population was	2, 613, 487
In 1840 the population was	2, 860, 559
In 1849 the population was	3, 056, 879
In 1859 the population was	3, 309, 128
In 1869 the population was	3, 579, 529
In 1879 the population was	4, 012, 693

The next tabular statements show the number of inhabitants to each 1,000 hectares and to each square geographic mile, in each province in 1879, and in the Netherlands, each decade from 1829 to 1879:

In the provinces.

Provinces.	Population.	
	To each 1,000 hectares.	To each square geographical mile.
North Brabant	910	5, 009
Gelderland	919	5, 059
South Holland	2, 659	14, 643
North Holland	2, 456	13, 518
Zeeland	1, 057	5, 819
Utrecht	1, 385	7, 626
Friesland	993	5, 470
Overyssel	817	4, 512
Groningen	1, 102	6, 069
Drenthe	446	2, 458
Limburg	1, 086	5, 982

In the Netherlands.

Periods.	Population to each 1,000 hectares.	Population to each square geographic mile.
December 31, 1879	1, 216	6, 696
December 1, 1869	1, 089	5, 995
December 31, 1859	1, 008	5, 548
November 19, 1849	938	4, 165
December 31, 1830	878	4, 833
December 31, 1829	802	4, 415

SOCIAL CONDITIONS.

A considerable proportion of the emigrants from this country to the United States are farmers, either land owners or tenants, who, I am assured, as a rule, go with more or less means, in many cases sufficient to purchase some land or small farms when they get to our side.

Such of them as have but little or no money, who are poor when they start, are hardly to be considered paupers, as they bring with them strong arms and stout hearts, a firm will to work, and are imbued with a spirit of manhood and independence.

It ought, therefore, not to be apprehended that such emigrants are ever very likely to become a charge on or a burden to any benevolent institutions, or to any city, county, or State government, on arrival at our shores, but, on the contrary, they, it will appear to me, are just the sort of people who make good citizens.

On this branch of the inquiry I am instructed not to confine myself to merely the emigrants, but to extend it and give information as to the general manner of living as regards housing, eating, and clothing, &c., of the whole population of the district.

In answer on this point I would state, in the first place, that the district which mostly contributes to the emigration comprises three provinces, those of Groningen, Friesland, and North Holland.

As to the general manner of living therein, it may be said that there are no very marked distinguishing features on the part of their population as considered to what it is on the part of the inhabitants in all the other provinces.

But if it is expected, as I doubt, that full and comprehensive information be given of the outside and inside of the palaces, residences, and villas of the aristocratic classes, the rich and upper middle classes, as well as of the plainer habitations, humble dwellings, and tenement houses owned or occupied by all the lower classes, including emigrants in the city and country; if it is expected to be fully and accurately described how and what each of these different classes of the population eat and drink, and how they clothe themselves, &c., then, I regret to say, my answer is apt to fall short of being satisfactory, and may disappoint the Department and the readers of this report.

To accomplish such a task in such a way would necessitate a sort of census to be previously taken, as up to this time there exists no published data, material, or statistics from which any such information could be adduced.

I trust, however, it will suffice when I state that the general manner of living, as regards housing, eating, and clothing on the part of the population in the above-named provinces, as well as in all of Holland, presents as great and similar contrasts between the most and least favored classes as it does in most every other country in Europe.

Side by side with ordinary comfort, great simplicity, and deprivation there exists the greatest comfort, elegance, and luxury; whilst many a workingman's family lives at a cost of 500 florins per annum, there are families whose yearly expenditures run up to 30,000 and 40,000 florins.

For further information on this point, and more particularly as to the manner and cost of living of the working classes, &c., I beg again to refer to what is stated thereon in my report of July 16, 1884, published in Consular Reports, Labor in E[illegible]

of marriages, divorces, children, natural and legitimate, from 1874 to 1884, inclusive, I compile statements from them as follows:

Statement showing the number of houses, &c., and the number of families, &c., in 1859, 1869, *and* 1879 *in Holland.*

Items.	Census of 1859.	Census of 1869.	Census of 1879.
Inhabited houses	542,395	634,595	729,098
Uninhabited houses	14,491	39,266	22,578
Houses in course of erection	.....	1,214	2,391
Inhabited ships	6,684	9,076	9,402
Number of families, exclusive of separately living persons	668,911	748,732	818,805

Marriages.

Years.	Average population.	Marriages.	Per one thousand souls.	Years.	Average population.	Marriages.	Per one thousand souls.
1874	3,741,632	31,353	8.4	1880	4,048,801	30,349	7.4
1875	3,788,395	31,553	8.3	1881	4,087,334	29,849	7.3
1876	3,837,491	31,699	8.2	1882	4,143,524	29,571	7.1
1877	3,895,124	31,470	8.1	1883	4,199,018	29,815	7.1
1878	3,953,339	30,711	7.8	1884	4,251,669	30,528	7.2
1879	4,009,448	30,655	7.6				

Divorces.

Years.	Divorces.	Per one thousand marriages.	From bed and board.		Years.	Divorces.	Per one thousand marriages.	From bed and board.	
			Number.	Per one thousand marriages.				Number.	Per one thousand marriages.
1874	154	4.9	29	0.92	1880	151	5.0	75	2.47
1875	151	4.8	35	1.11	1881	187	6.2	94	3.15
1876	153	4.8	25	0.79	1882	168	5.7	84	2.84
1877	155	4.9	51	1.62	1883	189	6.4	82	2.75
1878	163	5.3	71	2.31	1884	196	6.4	95	3.11
1879	155	5.1	59	1.92					

Statement showing legitimate and natural children.

Years.	Legitimate.					Natural.				
	Male.	Per cent.	Female.	Per cent.	Total.	Male.	Per cent.	Female.	Per cent.	Total.
1874	67,417	51.3	64,107	48.7	131,524	2,318	50.9	2,230	49.1	4,548
1875	69,102	51.5	64,961	48.5	134,063	2,227	50.5	2,179	49.5	4,406
1876	70,630	51.3	66,986	48.7	137,610	2,313	50.4	2,281	49.6	4,594
1877	70,807	51.3	67,223	48.7	138,030	2,310	50.3	2,278	49.7	4,588
1878	71,013	51.4	67,037	48.6	138,050	2,444	52.1	2,252	47.9	4,696
1879	73,116	51.3	69,340	48.7	142,456	2,306	50.6	2,252	49.4	4,558
							50.9	2,041	49.1	4,153

DEPORTATION OF CHRONIC PAUPERS OR INSANE PERSONS, ETC.

No case or cases of deportation of chronic or any paupers or of insane persons, with or without Government aid, have been brought to my knowledge or have been intimated to me during several years last past, and it may safely be stated, I think, that no such reprehensible practice is indulged in in these days, either on the part of the Government or public of this country.

Chronic paupers are not often met with in Holland.

Those who are pauperized through laziness, or habitual idling, soon turn either into mendicants or criminals, careers which generally and speedily lead to their becoming inmates of either work-houses and poor-houses, or of jails and other penal establishments.

For the treatment and care of the insane, rich and poor, male and female, most ample provision is made.

The insane asylums in this country and their general management are highly spoken of.

There are in all, as I am informed, eight such institutions in Holland, situated in different provinces, with a capacity varying as to convenient accommodation for from 200 to about 900 patients.

The largest one, located at Bloemendaal, near Haarlem, named "Meerenberg," surrounded by beautifully and usefully laid out grounds, consisting of about 100 acres, belonging to the establishment, contains at this time fully 900 inmates.

An additional building is now in course of erection there, at a cost of near 400,000 florins, which, when completed, in about two years, is intended to hold about 400 patients.

I visited this "asylum" a few days ago and am indebted to the kind-hearted, generous, and obliging director and "*Hinsmeester*" of the same for showing me around in nearly every part of it.

Whilst I cannot pretend to any particular knowledge or experience as to what insane asylums are in other countries, or as to what all they ought to be anywhere, I would not hesitate to state that to me it seems the "asylum" (*Gesticht*) "Meerenberg" deserves to be characterized a "model institution"; as nearly perfect in all of its appointments as, it would appear, such institutions can well be made.

Furthermore, Holland abounds in public and private establishments of every description, intended for the alleviation of afflicted and unfortunate sufferers, be they rich or poor, young or old, male or female.

Assisted emigation exists always to a more or less considerable extent. It may be divided in two categories, namely, such persons as are not only willing but anxious to emigrate, but who, without any fault of their own, require, receive, and accept assistance in order to realize their intention and object; and of such as are indifferent about emigrating or even opposed to it, but who are prevailed upon to go, and who, as it were, "are emigrated" by well-to-do relatives or friends supplying them the means.

The above first-mentioned class of emigrants is quite numerous, and may be said to compare favorably with others who go, and who are able to pay their own way.

The latter-mentioned class consists, usually, of a sort of never-do-good, indolent, or sluggish

ATTITUDE OF THE GOVERNMENT TOWARDS EMIGRATION.

From all that I have hitherto observed and learned I feel justified in stating that the Government of this country is perfectly passive as to the matter of emigration; it neither encourages nor restrains it. No impediments or obstacles of any kind are thrown in its way, so far as I know.

Several excellent laws, that of November 27, 1865, and of September 30, 1869, as well as two or three royal decrees, provide for and afford every protection to emigrants, particularly to such as are foreigners, and who come from over the borders to take ship in and depart from any port of Holland.

SPECIAL PRIVILEGES OFFERED TO INDUCE EMIGRATION.

From what is above already stated it will be obvious that nothing is done on the part of the Dutch Government to induce the emigration of any of its citizens. Neither are there, at this time, any corporations which are engaged to bring about emigration in any manner, at least none at all so far as I know and can learn.

The former passenger agents of the company whose ships ply between this port and New York made great exertions in that direction, but neither the company nor their present agents here attempt to cause or influence emigration in any way.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, May 31, 1886.

II.—EMIGRATION FROM AMSTERDAM TO THE UNITED STATES IN 1886.

Through the kindness of D. van Ketwich, esq., the superintendent of emigration at this port, who furnished me the required data and statistics I am enabled to prepare this report.

The total number of persons, men, women, and children, who emigrated to the United States via Amsterdam in 1886, was 4,647, as against 2,842 in 1885, being an increase in the emigration which took place in 1886 over that of the previous year, 1885, amounting to 1,805 persons.

They were all carried in the steamers Edam, Schiedam, and Zaandam, of the Netherlands-American Steam Navigation Company, in twenty-two trips, and all landed at New York.

The number of cabin passengers by same steamers and trips was in 1886, 1,040, whereas in 1885 only 243 cabin passengers were carried, which would show that the Amsterdam line is gaining in favor by the traveling public.

The 4,647 emigrants consisted of 2,546 men, 980 women, 906 children from one to ten years of age, and 215 infants.

As to their nationality may serve the following statement, viz:

Nationalities.	Number.	Nationalities.	Number.
			74

The number of 161 Americans put down in the foregoing statement should, it would seem to me, be deducted from the total number representing the emigrants, as the fact of their having gone as steerage passengers caused them to be, but erroneously, classed as emigrants.

The number of Netherlanders who came to our shores last year was very near the same as in the year before; there were 771 in 1886 and 786 in 1885.

The following statement shows in what proportion each province contributed to the emigration in 1886:

Provinces.	Men.	Women.	Children (one to ten years).	Infants.	Total.
Groningen	57	36	51	8	152
Friesland	51	22	25	8	106
Drenthe	5	5	6	3	19
Overyssel	17	11	13	4	45
Gelderland	40	24	29	8	101
Utrecht	7	1	3	.....	11
North Holland	75	52	58	13	198
South Holland	26	15	16	6	63
Zeeland	17	12	10	2	41
North Brabant	15	9	9	1	34
Limburg	1	.....	.....	.....	1
Total	311	187	220	53	771

Of the 771 emigrants from Holland, 496 are recorded as being without any trade or occupation, namely, 171 women, 223 children, 54 infants, and 48 youths from ten to eighteen years of age.

As to the trades or occupation of the remaining 275 Dutch emigrants, they are thus stated, viz:

Occupations.	Number.	Occupations.	Number.
Farmers	131	Chimney-sweeps	3
Farm and other laborers	87	Butchers	2
Merchants	9	Servants, male	2
Carpenters	9	Millers	2
Bakers	4	Other trades	17
Servants, females	3		
Dyers	3	Total	275
Blacksmiths	3		

The average time in which the trips were made from this port to New York was fourteen and a half days each, and without any serious or noteworthy accidents happening during the year covered by this report.

The price for steerage passage, which, in the spring of the year, was 60 florins, or about $24, was, in consequence of the Antwerp competition, later on reduced to 48 florins, or about $19.20.

It is agreeable to me to be able to report that the laws and regulations touching hygiene and sanitation as to ships and passengers are being closely looked after and strictly carried out in this port.

For illustration I would mention a case which came under my notice in the course of the year. A young woman named Catherine Schaumburg, of Melsungen, by Cassel, Germany, with her infant, six months old, who had engaged and paid her
sage, was ref

character and endanger the health or lives of other passengers. Through the intermediation of the city authorities, the mother and child were placed in a hospital, where they remained until the child was restored to health, and they have since then continued the voyage.

EMIGRATION FROM THE PROVINCE OF FRIESLAND.

Last year, after receiving instructions from the Department of State to report upon the extent and character of the emigration from this consular district to the United States, I applied for statistics and material to different persons and at various places, and amongst them to his excellency Baron van Harinxma Thoe Slooten, royal commissary of the province of Friesland.

At the time I rendered my report upon the subject, May 31, 1886, I had not yet received any answer from him, but about two months afterwards it came.

In it the royal commissary conveyed to me such full and interesting information relating to the extent, character, &c., of the emigration from the province of Friesland that I concluded to translate his communication and append it to this present report and as supplemental to the report above referred to.

In fact ordinary courtesy dictates this course, as to withhold it from the Department would hardly be proper, after an officer of such high rank had the kindness to take the trouble to prepare it, upon my request and in the belief that it was intended for our Government.

It is as follows:

LEEUWARDEN, *July* 29, 1886.

The UNITED STATES CONSUL, *Amsterdam:*

In response to your letter and request of the 24th of May last, I have the honor herewith to hand you a statement of the emigration from the province of Friesland to the United States, from 1876 to 1885, both inclusive, and a brief account of the social condition, &c., of the classes of people in the community which contribute more particularly to the emigration from this section, as well as more generally to the whole population of the province.

Statement showing the emigration from the province of Friesland to the United States, each year, from 1876 *to* 1885, *both inclusive.*

Years.	Communes.	Heads of families and unmarried men.	Circumstances of the emigrants.			Persons who accompanied heads of families and unmarried men.		
			Well to do.	Less well to do.	Needy or poor.	Women.	Children.	Servants.
1876	7	13	3	10	.....	4	17	.....
1877	10	21	3	12	6	8	24	1
1878	3	4	.....	2	2	2	6	.....
1879	6	8	.....	7	1	6	9	.....
1880	18	114	7	73	34	66	224	1
1881	36	560	17	380	163	335	909	13
1882	32	399	14	310	75	189	537	39
1883	29	276	18	194	64	120	339	7
1884	33	197	7	134	56	71	235	3
1885	23	81	13	54	14	33	128	2

Most of the communes whence, as was also the case many years ago, emigration directed its course to the United States, belong to or are situated on and surrounded by the so-called alluvial or clayey soil; then follow some communes having diluvial or sandy soil. Only one commune occurs whence any emigration has taken place in recent years where the soil consists entirely or partly of peatbog.

MANNERS AND CUSTOMS.

For centuries the Friesians have been praised for their noble pride, firmness, and constancy, as well as for their courage in any contest, and for attachment to their native soil. To these they always joined a strong sense of liberty and independence, and "Free Friesians" was the appellation by which they were known to foreign nations, an appellation by which their posterity are still fond of being distinguished.

Religion has always been in Friesland an object of the highest veneration, as is evidenced by the great number of churches in the province and by the amount of property belonging to them.

Throughout many ages, for more than two thousand years past, the Friesians have been able to maintain their separate existence as a people. This has contributed in a considerable measure to the preservation of their above-mentioned chief characteristics.

While in most towns the Dutch language is spoken with a Friesian accent, the language of the country districts, excepting the commune "het Bildt," and places along the frontier, &c., is the vernacular or "Low Friesian," which originates from the "Old Friesian language," and which on account of its antiquity and its resemblance to the English and other northern languages, as well as on account of its force and sweetness, is held in great esteem by the people.

Great attention has been paid to its cultivation during the last forty to fifty years, and it has been highly progressive.

Industry, frugality, and economy are, in a large measure, amongst the distinguishing traits of the Friesians.

The Friesians do not always appear amicable or friendly, yet they are hospitable, frank, and kind to all who are favorably known to them. They are passionately fond of popular games and entertainments. Horse-races, skating-matches, boat-races, bowling-matches, and other diversions, affording an opportunity for the exercise and exhibition of muscular strength, are particularly popular with them. On such occasions the Friesian lays aside his habitual reserve and enters heartily into the sport, becomes sometimes even boisterous and indulges to excess.

MANNER OF LIVING.

In the years of great prosperity that preceded the late years of depression the way of living, even among the lower classes, was often anything but simple. However, the force of necessity has gradually again worked a change in this respect, and the former simplicity—living within one's income—has been returned to.

DWELLINGS.

In this regard many material improvements have been effected of late years, not only in the towns but also in the country. The dictates and requirements of hygiene in matters of dwellings and lodgings of every description as well as in factories and work places are being better and more attended to than in bygone days, the public authorities being now unfailing in exercising their prerogatives and influence in all proper cases.

SUBSISTENCE.

The chief articles of food of the lower and laboring classes are: Rye bread, potatoes, farinaceous food, beans, peas, cabbage, turnips, and carrots, &c., with a little fat or often only with a little oil. If their means at all allow it their diet also includes such articles as butter and Friesian cheese, fresh milk and buttermilk, besides coffee and tea. Meat of any kind, though of late years somewhat cheaper, enters but seldom into their dietary.

When their earnings permit of it and meat is used by them it consists only of the poorest cuts of beef or pork, at best of a little mutton, and, in the spring of the year, of the veal of calves twenty-four to forty-eight hours old (*nuchter kalfsvleesch*).

In places along the sea-coast and in those parts of the
ried on as a business

The style of living of the classes of the community in question is marked, to a certain extent, by striking irregularity.

In the summer months, when the earnings are greater, there are often persons and families who indulge liberally; pauperize themselves thereby, and are consequently amongst those who come around early in the winter to ask relief from the commune.

The extremes of excess and want go, to a considerable degree, hand in hand with plenty of earnings and none at all or scarcely any.

The agricultural classes, from which by far the greater number of emigrants are recruited, take, as a rule, four meals a day.

The first, breakfast, very early in the morning, then dinner at 12 o'clock, a light repast with coffee or tea in the afternoon, and finally supper before going to bed.

The articles of food are here, in the main, the same as above mentioned, but they are, of course, generally more carefully prepared, of a better and more nourishing quality, and taken in greater abundance.

In addition to rye or black bread one finds here also wheaten bread and biscuits, while meat is commonly the principal dish at dinner, and for which in winter salted meat or bacon is substituted. For supper the remains of the dinner are often served up.

There is quite a difference in the manner of living and general condition of the farmers and those whom they employ as determined by their being situated or living in a clayey or sandy and fenny district.

It is true that the number and order of the meals are the same, but the quality of the food consumed is usually much inferior in the sandy and fenny districts.

It may be stated that, as a rule, in the clayey districts, where the interests of the inhabitants consist more especially of cattle-breeding and dairy pursuits, and where consequently fewer hands are required to perform the labor, the wages are generally higher, and as result thereof the workmen can afford to live better.

It is self-understood that what is above said relating to the way in which workmen and laborers, &c., are usually living in this province is not regulated exclusively by their wages or earnings, but also in accordance with the number of members in any family and of how many of them are not alone able but, at the same time, willing and ready to work, or in other words, actually industrious.

Much also depends upon the domesticity and thrift of the female head of the family or steadiness of the husband; in short, upon the physical, moral, and intellectual condition of the head of the family and of the several members thereof.

Here, too, then, the diet is determined by more or less changeable, uncertain circumstances, and it is, therefore, on the whole most difficult to fix upon any general standard regarding the matter.

In prosperous times and in well-regulated families, in which the productive members stand anyways in due proportion to the consuming ones, the standard of living will, of course, be higher than in any opposite case or cases.

It may further be remarked that "the actual condition" of most of the agricultural laborers and their families is about "a medium," which lies between the extremes of pinching poverty and deprivation and "comparative prosperity."

In this connection I cannot well omit also to speak of a certain species of drink, which, though it ought and cannot be classified under the head of this chapter, yet holds an important place among the beverages of the people of the Friesland, namely, "spirituous liquors."

In general, however, the "abuse" of spirits is much less amongst the rustics than amongst the inhabitants of the towns.

The consumption of it in the clayey and fenny districts is greater than in the sandy districts.

Ordinarily the peasant will seldom drink spirits at home, but confines his potations to the tavern.

On receiving calls, and on visiting occasions, and when celebrating any domestic or public festivity, the use of spirits is never eschewed, not even by the women, who, when their husbands, sons, &c., drink gin, indulge in brandy and sugar, or liquors of some description.

The habit of using intoxicating drinks prevails much less on the part of agricultural laborers than on the part of the working classes in the towns.

It is only on public and domestic celebrations and on holidays that some belonging to the former class are allured, forget themselves and drink to excess.

From the above, however, no too favorable conclusion must be adduced concerning the consumption of spirits in the country districts of Friesland, as certain parts are

In conclusion of this paragraph I would remark that the rural population of all degrees are very fond of cake and gingerbread, great quantities of which are eaten in all sorts of forms.

CLOTHING.

The clothing at present worn by the different classes of the population differs but very little from such as is in use by the corresponding classes of the inhabitants in the other provinces of Holland, and this is more particularly the case as regards men's ware. In the country regions it is, generally speaking, very simple. Underclothing consists almost exclusively of some woolen material, and this, in the case of the workingmen, during all seasons of the year, as the climate of the country makes this most desirable if not necessary.

The country women still wear the time-honored Friesian head-gear, the so-called "*ooryzer.*"

In the towns the use of this head ornament is vastly giving way to the ordinary and fashionable head dress of the period. When, however, the ladies of the upper classes, and even many of those less favored by fortune, do wear the head-gear in question, it is invariably made out of gold. Others wear the silver article. The price of a heavy "*ooryzer*," made of gold, costs often from 250 to 300 florins, and as added thereto there are often jeweled bands across the forehead. The whole ornament frequently represents great value.

POPULATION, MARRIAGES, AND DIVORCES.

The number of marriages during the last ten years has not kept equal pace with the increase of the population. That this is not an evidence of increased prosperity needs no further elucidation or comment.

In the years 1882, 1883, and 1884 there was, in the place of the former regular annual augmentation, even a falling off of the population. This did not occur in consequence of an excess of deaths over births, as in this respect Friesland is generally the most progressive province in the Kingdom; nor has it been caused by the "relative" mortality, but has been solely owing to the fact that a larger number of persons left the province than came to settle therein.

It may be assumed that amongst the first mentioned there were many who were induced to emigrate to the United States, or leave for and settle in other parts of the Netherlands, especially the metropolis (Amsterdam), in the hope of bettering their condition.

In spite of the decrease of population in 1883 and 1884, the number of marriages was no fewer than in 1881.

The number of divorces cannot be called large, but separations *a mensa et thoro* occur more frequently.

The figures in the following statement illustrate what is written under the next-above caption, viz:

Years.	Population on January 1.	Marriages.	Divorces.	Years.	Population on January 1.	Marriages.	Divorces.
1876	313,815	2,755	11	1881	331,515	2,341	8
1877	317,405	2,765	10	1882	329,309	2,262	12
1878	320,160	2,724	13	1883	329,237	2,349	17
1879	323,872	2,652	10	1884	329,130	2,341	10
1880	329,877	2,448	9	1885	330,866	2,370	13

I flatter myself that by the foregoing I have satisfied your wish, but should you desire further explanation or information upon one or another point I shall be ready and pleased to furnish it to you.

The royal commissary in the province of Friesland,

VAN HARINXMA THOE SLOOTEN.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE.

NORWAY.

REPORT OF CONSUL GADE.

As this district, which embraces Southern and Eastern Norway and the best populated parts of the country, has always contributed by far the largest number of emigrants to the United States, I shall not confine my report to the emigration from this port or my consular district alone, but give at once an account of the whole emigration from its first beginning up to the present time.

No other country in proportion to its population has contributed so much to that of the United States as Norway. About sixty years ago, in 1825, a small craft left the port of Stavanger, in Western Norway, with the first emigrants for America. Some of these, belonging to the Society of Friends, had become dissatisfied with the restricted religious liberty in their native land. A portion of these Norwegian pioneers settled near Rochester, in the State of New York, while others made their way down to Texas. Ten years later other small bands of Norwegians settled in Illinois, Wisconsin, and Minnesota. These three States afterwards became, with Iowa, the principal homes of the many thousands of Norwegians who followed them. In 1840 the Norwegians settled in America still numbered only 1,200, but during the next decade the settlers, all of them belonging to the Lutheran faith, received ministers from the mother country and formed into parishes under the Norwegian Lutheran synod, when their number rose to over 12,000. About two-thirds of this number had settled in Wisconsin, where they bought land and prospered in agricultural pursuits. It is computed that in 1860 the Norwegians in American numbered about 60,000; in 1870 about 180,000, 115,000 of whom were born in Norway.

During the following period of five years, 1871 to 1875, the emigration statistics give the following results:

1871	11,606
1872	13,327
1873	10,097
1874	4,357
1875	4,048
Total	43,435

Of these 33,161 persons were from the rural districts in Norway and 10,274 from the towns. The emigration seemed to threaten to deprive Norway of her most useful hands when it reached the alarming number of 18,070 in the year of 1869, but during the following years it fell again to an inconsiderable number. The period of 1876 to 1880 shows nearly the same total figure as the previous five years, viz, 40,244, but it was the last year, 1880, which alone sent the large number of 20,212 persons.

The following table classifies the emigration from 1876 to 1880:

Years.	Men.	Women.	From rural districts.	Towns.	Total.
	2,402	1,952	3,823	532	4,355
			2,798	408	3,206
					4,863

It will be observed that the proportion between the peasantry and people emigrating from the towns remained about the same during the two last lusters, viz, four to one, though it has varied much in the single years. It may, however, be safely said that the emigration from the towns is increasing more rapidly than from the rural districts and they consist largely of artisans, clerks, and domestic servants. A very large proportion have been young people between nineteen and twenty years old.

We have now come to the period 1881–'85, when Norwegian emigration reached its climax and attracted general attention, not unmixed with apprehension of its possible influence on the population of the country. The official returns for this period give the following figures:

Years.	From rural districts.	From towns.	Males.	Females.	Under 15 years.	Total.
1881	18,272	7,704	14,910	11,066	7,182	25,976
1882	20,599	8,205	16,538	12,266	6,337	28,804
1883	15,983	6,184	12,358	9,809	5,798	22,167
1884	10,363	4,413	8,044	6,732	3,618	14,776
1885	10,079	3,911	7,272	6,707	3,477	13,987
Total						105,704

In 1882, when 28,804 Norwegians left their country, the whole population was estimated at 1,900,000, which gave about 1.5 per cent. of its inhabitants as emigrants to America. Not only the population received no increase by births during that year, but it really decreased by 4,000 individuals. Since 1814, when the country passed through the ordeals of war and famine, the country has been always regularly increasing. The large emigration in 1880, 1881, and 1882 may be expected to exercise an unfavorable influence on the growth of the Norwegian population for years to come, as the increase by births was very small during those years.

It can already be seen that the emigration in the present year will show a marked increase on that in the two previous years. The cause of it must probably be found in the favorable reports of better times in America, while a great depression in many branches of trade and commerce continues to reign in this country.

In examining which classes supply the largest number of Norwegian emigrants, we find that farm hands and agriculturists occupy the first place. The wages are but small and quite insufficient in the rural districts for a man with a family to support, and the prospects a young man has to become the proprietor of a farm through his own labor are so distant, if not quite unattainable, that he may well give them up altogether to join his numerous friends and relations in America. These friends, who in many cases own farms in their new homes and need more hands on them, write tempting descriptions of their prosperity in America and the ease with which a young man can improve his condition there, inclosing often prepaid tickets for the passage. The annual emigration statistics show that no less than about 50 per cent. of the emigrants are provided with tickets sent them from America. Traveling agents of the different transatlantic steamship lines carrying emigrants encourge the country population to leave their homes, and a fresh impetus has lately been given to emigration.

The

farm hands, there has been a serious lack of laborers in some of the country districts, and wages have risen in proportion. In many places this loss has been partially balanced by the introduction of modern labor-saving machines, but the proprietors, finding so many difficulties to struggle with, often follow the example of their laborers; for the Norwegian soil is not very productive, the summer is short, and the climate severe. Farming has, consequently, never proved a remunerative pursuit in these latitudes, and Norway, with a population of less than 2,000,000, is annually obliged to import cereals for about $9,000,000. The prospects of the farmers are just at present gloomier than usual, on account of the large supply of cheap grain from America and other producing countries and the general depression in the prices of all agricultural products. Land is, therefore, selling at a heavy loss, while its former owners set off for the Far West.

It is but justice to say that America has gained in the Norwegian contingent of its emigrants, as the race is on the whole distinguished for its intelligence, industry, and the frugality of its habits. They are commonly accused of being slow and tenaciously attached to old habits, a natural consequence of their secluded life in solitary valleys of their native land. But from old times, when they first settled in Iceland and established other remote colonies, they have always proved useful and valuable settlers, ready to assimilate with the people in the land of their adoption.

Next to the agriculturists or "*bönder*," as the peasantry are called in this country, we find artisans of all kinds strongly represented among the emigrants. The official statistics for 1882 report that 1,496 artisans left in that year for America, of whom 150 were blacksmiths, 341 joiners, 129 tailors, 230 shoemakers, 159 carpenters, 96 painters, 75 masons, 71 bakers and confectioners, and 52 mechanics. In the same year 876 seafaring men emigrated, 167 fishermen, and 275 persons who had been engaged as tradesmen, clerks, &c. It is not to be wondered at that Norwegian domestic servants go to America in increasing numbers, as their wages at home are very low, varying from $20 to $40 a year for girls in the towns, and in the country they are even lower; 896 servants are thus reported to have left in 1882. Norwegians employed as servants prove generally honest, good-tempered, and trustworthy. They ought consequently to be especially welcomed in American homes. The principal, and I may say almost the sole cause that Norwegians leave their homes, is the desire to improve their material condition. Hardly any other nation in Europe has for the past seventy years enjoyed more peace and continued progress under free and truly democratic institutions than Norway, and no political disturbances or other social causes of dissatisfaction have been determining influences in emigration. The military service exacted from every Norwegian male at the age of twenty-two has never been so onerous as in other countries of Europe, and I believe it has rarely been a motive for emigration. According to law, persons liable to military duty must apply for permission before emigrating, but I have never heard that the Government has in any case refused it. If these emigrants should return to Norway while still within the legal age, they are required to offer themselves at once for [illegible] to the military qualities of the Norwegian emigrants, they

children, representing a very large capital of money spent on their support and education, has been felt as a serious national loss. But the Government of this democratic land, where all political power has gradually passed into the hands of the people, has never thought of putting any restriction in their way. Nor, on the other hand, have the authorities encouraged emigration from the poorer districts, where the indigent are an excessive burden to the community. The taxes annually assessed for the support of the poor amount to over five millions of kroner, two-thirds of which go to the poor of the rural districts and the remaining third to the towns. Emigration would indeed be a relief in many cases, but there is no reason to suppose that paupers have ever been shipped from this country to the United States, though the poor boards in the rural districts may, in some instances, have aided poorer emigrants who had friends in America with small sums to make up passage-money. Emigrant agents and shippers here are well informed of the American emigrant law, and know that their own interests are best served by paying full regard to it.

No case has come to my knowledge of any released prisoner who has been sent to America from this country, either by the public or any societies for the care of ex-convicts. Undoubtedly many such are to be found there, but there is at least a better hope of their becoming honest, self-supporting citizens under new conditions and away from the scene of their temptation and failure.

GERH. GADE,
Consul.

UNITED STATES CONSULATE,
Christiania, October 19, 1886.

RUSSIA.

ST. PETERSBURG.

REPORT OF CONSUL-GENERAL YOUNG.

There is but little emigration from Russia, more perhaps to the United States than to any other country. The Government of Russia does not encourage emigration, on the contrary it prohibits all Russian subjects from leaving the Empire of Russia, except Poles and Jews. It does not encourage these in any tangible form, but allows them to leave with written permission. The Mennonites have emigrated perhaps more extensively than any other class of Russian subjects. The Mennonites came to Russia from Old Germany, principally from Prussia and Holland, about the beginning of the nineteenth century, and settled in Southern Russia in the districts of Berdiansk, Ekaterinoslav, and Saratov. There are about 50,000 in all. They are all industrious, thrifty, agricultural people, very quiet and peaceably inclined. They enjoyed comparative repose and freedom from interference till 1871, when it was ordered that the Mennonites should serve in the army. This they absolutely refused to do, not by violence or by any revolutionary means, but stoutly declared that they would not and then did
issued a

to believe that the Government is well satisfied and even anxious to get rid of its Israelite population, and when they go it is not with a blessing but with a kick and "glad to get rid of you." There is no register kept of persons who emigrate from Russia that I can get to examine. I think that none exists, and no idea can be formed of the number of emigrants for each year. A few Mennonites manage to slip out every year, and they make good citizens and generally leave this country with some means. Much cannot be said of their morality; they marry, it is true, but are exceedingly loose in their habits of life. The Poles are perhaps a shade better in their private relations and are an industrious people. It is my opinion that compulsory military service is the cause of most of the emigration from Russia, and perhaps the objection of many to the form of government, which is rigorous, but generally just in the administration of the laws, rules, and regulations, for really there are more rules than laws. The lowest classes generally form the greater part of the emigration. I might add that the manner of distributing the land is very distasteful to many people, and that is one cause of discontent. The land is let out in communities and owned by the communities, but not by individuals unless they are able to purchase in certain districts when land is for sale. The class that emigrate is very poor generally. Their general manner of living is quite primitive and plain. The majority of the poor people rarely have meat; they live on black bread made of rye, quite sour, and cabbage soup, and in summer other vegetables, principally cucumbers fresh and pickled in brine. In the winter they are clothed in sheep-skins mostly, and in summer cheap stuffs made of flax and cotton goods. I know of no emigration of "chronic paupers or insane persons." As before stated, there is no aid given to any class of emigrants from Russia. The obstacles in the way of emigration from Russia are the strict police regulations and the system of passports; all subjects, male and female, must have passports and renewed every year.

The entire frontier is guarded closely. No special privileges or rates of fare are offered by the Government or any corporation for aiding emigrants, and these circumstances prevent emigration. There is no system of emigration—none encouraged or assisted—but Jews and Poles are allowed to go when they have proper passports.

P. M. B. YOUNG,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, August 6, 1886.

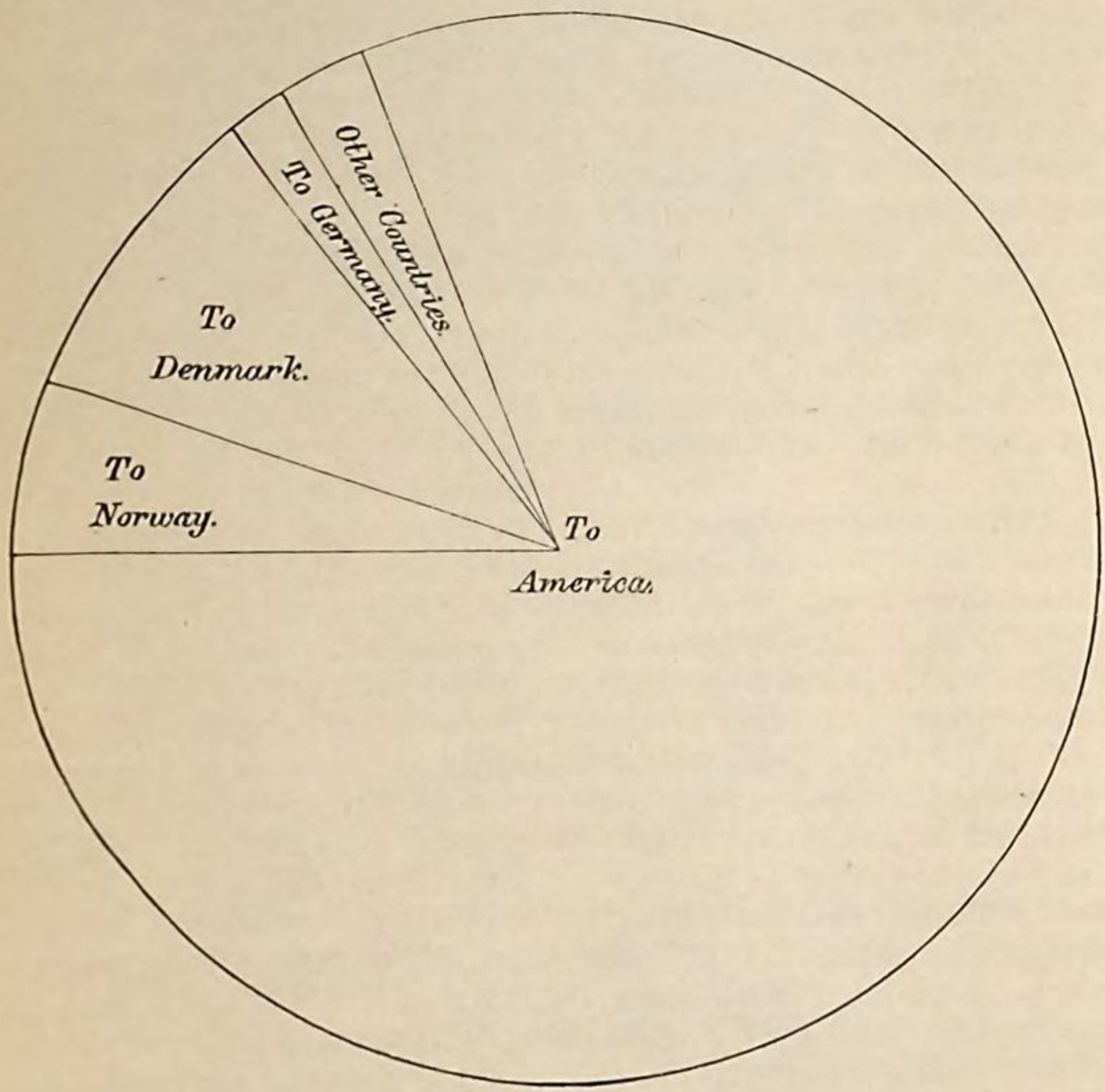
SWEDEN.

REPORT OF CONSUL ELFWING.

The emigrants from Sweden to America during 1851–'60 were 14,868, and during 1861–'65, 9,420.

Year.	Emigrants.

DISTRIBUTION OF EMIGRATION FROM SWEDEN IN 1884.



During the first six months of 1885 there were 9,403 emigrants. The total number during last year is not yet officially published. The first six months of the present year show a great increase in emigration, or, according to the newspapers, 17,693, but it is not all to the United States, and about 3,000 of these emigrants are foreigners, mostly Finlanders.

Of the classes which supply the greatest number of emigrants the agricultural is probably the largest, if agricultural laborers are herein included. The servants' class, particularly among the women, is also very large. Otherwise every class is represented, and may be thus classified: Servants, laborers, agriculturists, mechanics, engineers and architects, clerks, and merchants.

The cause of emigration is the belief that they can better their condition, and probably also a fondness for an adventurous life. There are no political causes, nor is it onerous taxation, nor a surplus population. Here is, to be sure, compulsory military service, but as it amounts to only thirty days, or fifteen days of service at age of twenty-one years and fifteen days at twenty-two, this cannot be the cause, particularly as every one after twenty-two years of age, since the military service is finished, is free to go wherever he pleases. Next year, however, a law will go in operation by which the time of actual service will be extended to forty-two days for the two years. A main cause of emigration is the fact that so many have emigrated, and these are constantly writing home asking their friends to follow, and also sending them tickets or money to go over with.

The pauperism of this country is not excessively large. The number of paupers was, in the year 1884, in the country, 4.88 per cent. of the population, and in the cities 6.96 per cent., or for the whole country 4.87 per cent. The total population of the country was 4,565,668 in 1880, of which 1,238,126 were land-owners, and the total agricultural population was 2,342,994. The total of the industrial population, or those that belonged to saw-mills, mines, iron works, textile-mills, &c., were 576,366. Those belonging to commerce, navigation, and transportation on land, &c., 222,291, and those to the administration, to the army and navy, clergy, &c., 206,693, &c.

The total number of marriages were, in 1884, 30,200, and those dissolved through divorce in the same year 241. Number of children born in 1884 was 138,754, of which 14,183 were illegitimate. In the city of Stockholm were 29.3 per cent. illegitimate. With Government aid nothing has been done towards deportation of chronic paupers or criminals, but I have heard of a few cases where a community has given money to paupers to go off to America and not be a burden to them. Also philanthropic societies for the relief of liberated criminals have paid the passage to America for such, but I do not think that such practices now take place any longer. Two such societies have even asked me to help them to get the criminal a start in America. The law of reshipping all such cases has undoubtedly put a stop to these practices.

The Swedish Government has done what it could to stop emigration, in that a law, which went in operation last year, decrees that no one can buy a ticket for America or Australia without first producing a certificate to the effect that he does not leave a wife or children unprovided for or unpaid debts, but that does not prevent any one from going to any other foreign

I do not think that any special privileges or rates of fare offered by Governments or corporations to induce emigration have much affected there the emigration from Sweden to the United States.

NERE A. ELFWING,
Consul.

UNITED STATES CONSULATE,
Stockholm, August 18, 1886.

SWITZERLAND.

REPORT OF CONSUL-GENERAL WINCHESTER.

Referring to the circular of the Department dated April 27th ultimo, and received on the 15th instant, this consulate general would state that it is impossible to make a very full or satisfactory report on emigration and the various conditions relating to and affecting the same in Switzerland. The machinery of the Swiss Government, national and cantonal, is very simple, limited, and economical. The investigation and statistics of the questions embraced in the circular do not approximate those of the United States in extent, detail, or accuracy.

Emigration from Switzerland was for some time on the decline, but showed a steady and marked increase from 1878 to 1883, inclusive; then a very heavy decline during 1884 and 1885. From 1873 to 1885 the emigration to the United States was as follows:

Year.	Number.	Year.	Number.	Year.	Number.
1873	3,460	1878	1,602	1883	11,619
1874	1,631	1879	2,964	1884	8,539
1875	866	1880	5,792	1885	5,934
1876	1,011	1881	9,996		
1877	1,027	1882	11,069		

The number of emigrants from Switzerland to the United States from 1873 to 1885, both inclusive, was 65,332; emigration to all other countries for the same period, 15,242; total, 80,574—80 per cent. going to the United States.

From July 1, 1876, to June 30, 1884, the various classes were represented as follows:

Occupation.	Number.	Occupation.	Number.
Farmers and laborers	14,410	Printers	71
Millers	234	Bookbinders	72
Bakers	635	Spinners and weavers	292
Butchers	666	Embroiderers	56
Brewers	209	Dyers	75
Gardeners	245	Watchmakers	406
Tailors and tailoresses	1,241	Machine engineers and technologist	251
Shoemakers	667	Mechanics	553
Barbers	77	Smiths	434
Washers and washerwomen	54	Cartwrights	122
Stone cutters	101	Clerks	2,056
	553	Saloon-keepers	423
			73

An average year shows the percentage of the trade classes to be: Producers, 50 per cent.; industries, 20 per cent.; commerce, 3.9 per cent.; personal service, 3 per cent.; without specification, 22 per cent.

The causes of emigration from Switzerland to the United States are to be found more in the latter than the former, and are chiefly its cheap and fertile lands, high wages, and the broader field and superior opportunities for obtaining competence and wealth.

The masses of the Swiss, as the result of a very excellent system of compulsory public education, are well informed, observant, and susceptible to the influences indicated.

There are contributory causes in Switzerland not to be overlooked. In physical respects it is not a bountiful motherland. Neither the climate nor the soil is good for agriculture. It is only by persistent, indomitable toil and strict frugality that the peasants can win a scant subsistence. Yet the best is made of it, and it is surprising how much the best can do. Everywhere are seen the proofs of active thought, method, economy, a ready hand, and all the evidence of prosperity in a frugal way.

The area of the country is 41,488 square kilometers, or 15,992 English square miles, giving an average density of population of 177 per English square mile. This density varies from 24 in the Grisons to 932 in the canton of Geneva, per square mile.

Thirty per cent. of the area is occupied by mountains, glaciers, lakes, and rivers. Of the total, only 51 per cent. is under cultivation.

The population dwell mostly in small towns, hamlets, and villages, there being only five towns with more than 25,000 inhabitants. Of the total population by the census of December, 1880, 2,846,102, of whom 1,394,626 were males and 1,451,476 females, there were engaged in agriculture and dairy farming 1,138,678, in manufacturing industry 976,052, in commerce 206,003, in transportation 112,440, in the public service 42,879, living on incomes and pensions 56,055, alimentation 86,837, and 24,926 without a calling, the remainder composed of mining, silk culture, the chase, and the professions.

Some districts are entirely pastoral; not a plow is to be found in them; neither are fruits or vegetables cultivated. Whilst there is perhaps no country more carefully tilled, it has profited but little from modern inventions. The implements of husbandry in general use are of quite a primitive fashion. Labor is cheap, and results are obtained by a patient expenditure of manual toil.

Great attention is paid to forest culture. The rocky mountain side is made to support as many trees as could possibly grow together on the space devoted to them, and each individual tree is carefully looked after and scientifically pruned and trained, so that they shall not interfere with each other, but each has its fair share of space and light. In this work nature aids man's labor and thought by giving to the forests an abundance of moisture, and between the frequent storms and showers abundant floods of sunlight and warmth. It is this that on the mountain sides enables trees to take root and grow to a considerable size on what apparently is little more than a barren rock.*

Emigration is of course stimulated to some extent by the activity and efforts of emigration agencies, of which there are 370 located in Switzerland; the pecuniary assistance doubtless extended in some cases by these agents and the special rates [illegible] are addi[illegible]

The federal and cantonal governments do not interfere with emigration either in the way of restriction or encouragement, and have uniformly declined to engage in any colonizing schemes.

Previous to 1881 there was much complaint of objectionable and "assisted" emigration to the United States, but in April, 1881, there went into effect a law, passed by the Swiss Government, forbidding "agents to forward persons to whom the laws of the country to which they emigrate prohibit the entry."

It is gratifying to say that this law appears to be faithfully and energetically inforced by the Swiss officials, and observed by the agents to an extent that promises to remove the evil entirely.

No case of objectionable or "assisted" emigration has come within the knowledge of this consulate-general since July, 1885.

Compulsory military service cannot be said to exercise any material influence on emigration from Switzerland. This service is not distasteful or burdensome, partly from the natural military qualities of the Swiss and partly from the instruction in the elements of drill in the various national and public schools.

Stated as a broad principle, the liability to military service in Switzerland commences at the age of twenty and ceases at the age of forty-four.

The first twelve years are passed in the élite or first line, and the last twelve in the landwehr. Practically, the term of service in the first line has been reduced to eight years, and the men composing it are compelled to attend annually for a few days to undergo inspection and drill. The second line, or landwehr, have no exercises, but merely an annual inspection of arms. Every Swiss who does not perform military service personally is subject to an annual exemption tax. This tax consists of a personal charge of 6 francs, or $1.16, and a supplementary tax in proportion to fortune or income. In no instance, however, is the sum total for which one individual is liable to exceed 3,000 francs, or $579; and no fortune under 1,000 francs, or $193, is liable to the tax; and 600 francs, or $115.80, is to be deducted from the net income of every person who is liable. It is true that since the war against the first Napoleon, when the Confederation furnished a contingent of 15,000 to the allies, Switzerland has not been called on to draw the sword, and there are some who protest against what they term an unnecessary waste of money and time expended on its armed forces; but it is believed that a very large majority of the people are in favor of, and cheerfully comply with, the requirements of the military service, mindful of the warning contained in the reply of the chancellor of the German Empire, who, when asked in 1870 to what extent Swiss neutrality would be respected, said, "To the extent to which you yourselves respect the device of the Scottish order of the Thistle—'*Nemo me impune lacessit.*'"

The subject of military service has been dwelt upon at some length, for, as a rule, it is the most conspicuous cause of emigration generally from Europe to the United States.

Taxation in Switzerland is not onerous. The statistics as to marriage and divorce, children natural and legitimate, present no unusual or striking features. In 1883 the births were 81,974; deaths, 58,633; [illegible] were still-born, and the

The majority of those engaged in agriculture and dairy farming are comfortably housed, and are able to furnish themselves with suitable clothing and sufficient wholesome diet, pork, fresh and cured, smoked beef, or sometimes called "mummy beef," potatoes, cheese, milk, butter, bread, and a thin wine of his own production, are the principal articles of food.

The poorer classes of people subsist on food of a much inferior quality and limited quantity. Meager cheese, the curd that rises on the heating, after the first curd for the cheese has been removed, black rye bread, potatoes, soup from rice or flour, a very weak dilution of coffee, and potato spirits (a most pernicious distillation), constitute the normal fare of the laboring masses. Fresh meat cannot be reckoned as an article of consumption. It is confined to a very small class; and the numerous large public houses are a great and growing source of revenue to Switzerland.

The laboring man manages his scant and indifferent food to the best advantage, partaking of it frequently. In addition to the usual three regular meals, he has a lunch between breakfast and dinner, and dinner and supper, and then again before retiring to his slumbers.

As to strikes, they have never had any organized existence or influence in Switzerland, therefore could not have entered into the question of emigration.

With a few sporadic, insignificant symptoms, Switzerland has been exempt from the great, widespread labor unrest that has so alarmingly prevailed throughout Europe and the United States.

The subdivision of the soil among a multitude of small proprietors, for the most part energetic, industrious cultivators of their own holdings, largely contributes to render the Swiss people a happy and contented people. The soil of the country is so extensively divided among the population that it is estimated there are nearly 300,000 peasant proprietors, representing a population of about 2,000,000.

There is no country whose laws afford greater facilities for the acquisition and transfer of land. The general tendency is to discourage the centralization or accumulation of landed property in a few hands and to promote small farming as the best parent of general public contentment, happiness, and thrift.

This diffusion of landed property in Switzerland tends to give a great perfection to many social arrangements.

In the most insignificant hamlets and villages there will usually be found a post-office, a regularly-appointed watchman by night, public fountains, a market place, and a fire engine, in the use of which the people are exercised.

There are in Switzerland no instances of great wealth, no appearance of great ease and luxury, no rich and splendid aristocracy, but almost every head of a family, however humble his circumstances, possesses a home belonging to him in fee, with all of its civilizing influences. Pauperism as an institution is scarcely known.

There is pinching, but little actual distress among the industrious poor. As to those whose trade is poverty they are about the same everywhere, neither worse off or better off in any country.

The absence of any grinding poverty is no doubt partly owing to the natural independence of the people as well as to their industrial
its, simple methods of

largely saves them at least from pauperism. If they were as wasteful, careless, and improvident as our wages supported class the ibex and chamois might soon return to the valley.

The Swiss are known to be ingenious in many kinds of workmanship, specially in wood-carving clock-making, and embroidery. They are keen not only in getting, but in keeping their money. An old proverb says, "It requires ten Jews to cheat a Swiss, and ten Swiss to cheat a Genoese." They present a remarkable and undisturbed type of old provincial life, with many curious survivals of customs and traditions, a deep distrust of innovation and what is new, adhering to a primitive way of doing the simplest things.

Industry, forethought, self-supporting energy, and reciprocal dispositions to neighborly help pervade the population. Brave, enduring, patient, law-abiding, kindly contented in the practice of their simple forms of life and faith, it may be truly said:

> Yet still e'en here content can spread a charm,
> Redress the clime, and all its rage disarm;
> Though poor the peasant's hut, his feast though small,
> He sees his little lot the lot of all.

All the statistics in this report cover the whole of Switzerland.

BOYD WINCHESTER.

UNITED STATES CONSULATE-GENERAL,
Berne, May 22, 1886.

ZURICH.

REPORT OF CONSUL CATLIN.

During the past forty years Switzerland has sent more emigrants to the United States than has France with thirteen times her population. On the other hand, Germany with sixteen times and Ireland with scarcely twice as many inhabitants as Switzerland, have during the same periods sent us respectively twenty-one and sixteen times as many emigrants as she. The following table shows at a glance the relative rate of emigration from Switzerland, as compared with the three other countries mentioned, viz:

Country.	Population.	Emigration* May 5, 1847 to January 1, 1886.	Rate per 1,000 inhabitants.
France	37,405,793	138,959	3.7
Germany	45,238,829	3,113,787	68.8
Ireland	5,159,839	2,355,497	456.4
Switzerland	2,846,102	145,936	51.2

* This embraces the emigration to New York alone, but the additional emigration to the other American sea-ports would not materially alter the ratio.

Swiss transmarine emigration attained in 1883 its greatest propor-

ing which year the emigration was only one-third of what it had been in 1873. Then the tide steadily rose again until it reached its highest point in 1883, when it again began to ebb.

These fluctuations are unquestionably ascribable to the variable conditions, whether agricultural or industrial, existing from time to time in either or both of the two countries. In Germany a good year in crops or vintage invariably means a larger emigration to America, as it affords increased funds for the purchase of tickets and the other outlays incident to a change of home. The patriotic Switzer, on the other hand, values a good year as the means of enabling him to avoid emigrating and to remain all the longer among the mountains and valleys of his loved fatherland. The German, in other words, emigrates when he can; the Switzer only when he must.

One principal cause operating to swell the tide of German emigration is lacking in Switzerland, viz, the pressure of compulsory military service. However persistently the right of expatriation may be denied to the young Swiss who goes away to the United States, he is at all events not branded "deserter," as is his fellow-emigrant from over the border. Swiss military requirements are light, and their burden is easy to be borne; so easy, in fact, that to escape them is no inducement whatever to emigrate. We must look, then, for some other ground on which to base the comparatively high percentage of emigration from Switzerland, and it is to be found in the lack of employment resulting from industrial depression, in the difficulties of earning a subsistence, and in the inherent general desire on the part of every man to better his condition in life.

And first in regard to lack of employment. To a considerable extent the substitution of machine for hand labor has, by reducing the demand for the latter, been for years past steadily augmenting the ranks of the unemployed. But, and especially at the present time, the industrial depression in silk and cotton manufacturing centers has a still greater influence in the same directions. Take, for instance, the present condition of the silk industry of the canton of Zurich. During the last two years the number of firms engaged in manufacturing silk has fallen from 136 to 119, the number of employed from 50,396 to 39,084, and the amount of wages annually paid from 21,718,624 francs to 18,230,877 francs. In 1881 there were 19,168, in 1883 17,925, and in 1885 11,959 silk hand weavers employed in the canton. In other words, there were 7,209 fewer silk weavers employed in 1885 than in 1881, and the question naturally arises to what other means of livelihood these 7,209 have turned for subsistence. In a community where all the trades and occupations are overcrowded, where the supply of labor invariably exceeds the demand and where new enterprises or undertakings, such as the building of railroads, canals, or other great public works are lacking, the finding of new employment all at once for 7,000 persons in a single canton is practically an impossibility. Emigration, either to other cantons or to other lands, follows as a matter of necessity.

The difficulties and hardships which the lower and many of the rural classes in Switzerland encounter in the struggle for existence also contribute largely to swell the current of emigration to foreign lands. Switzerland can in no sense of the word be called an agricultural land. She does not produce in one year enough grain to supply her population for one-sixth of the period. Her annual [illegible]
metric cent[illegible]

have been of late greatly enhanced by the opening of the Arlberg *rail*-way route, yet the deficit exists nevertheless, and always will, no doubt, unless some means can be found, which is not probable, of increasing the cultivable area of Switzerland. Now, with $30,000,000 to be sent away into other countries for bread, it follows there must exist great industrial prosperity to balance the account and pay the bill. *But* where, as in the present instance, industries are depressed, payment comes hard, and bread becomes correspondingly scarce. Here is *another* great stimulant to emigration.

There is still another point from which this question may be viewed, viz, from that of the desire inherent in every man's nature to better his position where he can. To "better his position" consists, in the case of a young single man, in acquiring the means to marry and *found a* home and family. In the case of the man already possessing a wife and family, it consists in making some better provision for their *joint wel*fare and maintenance. This leads us to a consideration of the prevalence of marriage in Switzerland. The annual percentage of marriages to every thousand inhabitants is somewhat lower than it was fifteen years ago. In 1871 it was 7.3, while from 1880 to 1884 it was annually 6.8, the rate in Germany being 7.8, in England 7.7, and in *France 7.6.* Marriage is, consequently, less prevalent in Switzerland than in either of the three other countries named; the ratio of marriageable *women* to marriageable men is that of 5 to 4. Of the men who marry 60 per cent. are between the ages of twenty and thirty, and 76 per cent. between the ages of twenty and thirty-five. This tends to show that as a rule young men in Switzerland do not defer marriage, awaiting a competency, as is the case in some other lands. It is also a noticeable *feature of* Swiss marriage that over 80 per cent. of the men who marry are drawn from the producing and industrial classes.

A study of these facts and figures inclines me to the opinion that the emigration of young men from Switzerland is no more influenced by the existence of hindrances to marriage than it is by a desire to escape military service. Industrial depression and consequent lack of employment are the causes principally operating to send yearly so *many thou*sands of Switzers to our shores. The series of tables, I to IX, accompanying this report, will be found to illustrate more fully, *and by* cantons, the various figures which have been adduced. Should the present unfortunate condition of Swiss industries continue, and there is no present prospect of any great improvement, and in case no restrictions are in the near future placed upon emigration by our own Government, it is probable that during the next ten years *we shall* receive largely increased accessions of these hardy, thrifty, and industrious people, whose predecessors have already done so much to develop our resources and populate our great West.

In a recent report on the subject of Mormonism in Switzerland, I adverted at some length to the efforts now being made by missionaries from Utah to secure proselytes to their faith. There is reason to believe that within the last two months a considerable number of converts have left this country for Salt Lake, going by way of Berne (where they have their headquarters), and Basle. But their departure has been *so sur*-

venting their departure hence so long as they have committed no offense against the law and go of their own free will.

Cases of what was known as "assisted" emigration were formerly frequent, but now, thanks to the energetic action of the emigration authorities at New York, seem to have ceased altogether. During my service at this post only one case sufficient to arouse suspicion has come within my knowledge, yet even then a rigid investigation disclosed no grounds upon which to base a complaint or a demand that the parties be refused permission to land.

Switzerland, moreover, sends us few if any of the Anarchists and Socialists who of late years have thought to find in our Republic the soil favorable to the propagation of their pestilential doctrines. Her sons, reared to liberty, are slow to abuse it, whether in their own land or in that of their adoption. It has been stated that the man who threw the dynamite bomb in the Chicago riots came from the city of Zurich. I have no means at hand for either substantiating or disproving this statement, but if such be the case, it is quite possible that the person referred to is one of those hundreds of political refugees from Germany, or elsewhere, who, like the convicted Anarchist leader, John Most, have found it convenient to make a short stay here in Zurich, or some other Swiss city, before embarking for the United States. The exclusion of such persons were an easy matter could each emigrant be required, before landing, to produce documentary proof of identity, place of origin, previous occupation, &c., such as under the title of *Legitimations-Papier*, is exacted by the police authorities here or elsewhere throughout the greater part of Europe, as a condition of residence. It is the absence of some such requirement as this that has enabled thousands of irresponsible agitators and refugees to land unchallenged in the United States, and there with impunity, and without even the pretense of an acquired citizenship, to at once set about their work of subverting the priceless heritage of a Washington and a Jefferson. Happily, I say, for Switzerland, she sends us few or none of these firebrands. Her people are not in sympathy with the doctrines of anarchy, and should a general social revolution ever occur it would find no support from a population who like the Swiss have always upheld the principles of free government, and never tolerated the yoke of political bondage.

GEORGE L. CATLIN,
Consul.

UNITED STATES CONSULATE,
ZURICH, *June* 5, 1886.

Statement of transmarine emigration from Switzerland, by cantons, 1871–1884.

Cantons.	1871.	1872.	1873.	1874.	1875.	1876.	1877.
Zurich	277	293	482	144	95	124	134
Berne	855	967	795	457	256	458	380
Lucerne	35	28	43	23	3	32	17
Uri	.....	.....	.....	.....	.....	.....	.....
Schwyz	102	106	44	67	28	23	18
Unterwalden, Upper	36	69	60	31	8	12	9
Unterwalden, Lower	2	3	2	4	.....	.....	.....
Glarus	215	259	314	144	43	51	50
Zug	9	5	5	11	4	3	3
Freiburg	10						
Solothurn							

Statement of transmarine emigration from Switzerland, &c.—Continued.

Cantons.	1871.	1872.	1873.	1874.	1875.	1876.	1877.
Appenzell, Inner Rhodes	------	------	------	------	------	------	------
St. Galle	310	353	301	206	57	102	90
Graubünden	211	369	304	72	43	40	35
Aargau	420	425	484	142	88	81	123
Thurgau	97	70	80	56	47	37	26
Tessin	644	889	1,195	602	472	392	550
Waadt	------	------	------	------	------	------	------
Wallis	126	552	393	447	438	237	38
Neufchatel	104	90	65	47	28	51	55
Geneva	------	------	------	------	------	------	------
Total	3,852	4,899	4,957	2,672	1,772	1,741	1,691

Cantons.	1878.	1879.	1880.	1881.	1882.	1883.	1884. Number.	1884. Per 1,000.
Zurich	200	248	540	1,329	1,440	1,570	1,206	3.7
Berne	474	941	1,636	3,079	3,560	4,667	2,995	5.5
Lucerne	70	77	141	225	225	190	191	1.4
Uri	------	31	20	88	90	135	94	4.
Schwyz	20	87	299	304	171	186	137	2.6
Unterwalden, Upper	22	32	46	225	112	108	161	10.3
Unterwalden, Lower	3	3	17	23	11	21	28	2.3
Glarus	105	191	412	468	376	311	146	4.2
Zug	3	------	41	50	55	89	202	8.5
Freiburg	41	51	46	49	131	126	163	1.4
Solothurn	94	221	380	359	392	349	230	2.8
Basel-Stadt	53	246	126	253	731	467	404	5.7
Basel-Land	62	231	226	311	331	316	261	4.3
Schaffhausen	61	104	375	369	335	381	266	6.9
Appenzell, Outer Rhodes	26	31	76	148	168	123	91	1.7
Appenzell, Inner Rhodes	------	1	8	15	16	10	5	0.4
St. Galle	193	204	602	1,061	884	520	477	2.2
Graubünden	31	31	68	191	429	467	423	4.4
Aargau	214	359	795	1,010	933	1,271	641	3.2
Thurgau	54	78	131	271	250	172	85	0.8
Tessin	507	667	628	589	455	531	667	5.
Waadt	83	115	82	112	113	308	181	0.8
Wallis	26	84	165	146	390	795	206	2.
Neufchatel	136	206	239	159	258	263	240	2.3
Geneva	130	49	156	101	106	125	108	1.
Total	2,608	4,288	7,255	10,935	11,962	13,502	9,608	3.3

Destination of emigrants from Switzerland, 1871–1884.

Whither.	1871.	1872.	1873.	1874.	1875.	1876.	1877.
North America	2,729	3,288	3,462	1,631	866	1,011	1,027
Central America	146	158	183	82	76	70	91
South America	731	1,150	997	796	642	393	244
Africa	92	177	139	58	77	72	167
Australia	109	60	121	49	74	146	117
Asia	16	14	6	7	9	13	11
Unknown	29	52	49	49	28	36	34
Total	3,852	4,899	4,957	2,672	1,772	1,741	1,691

Whither.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	Total.
	1,602	2,964	5,792	9,996	11,069	11,619	8,359	65,415
							5	1,383

Classification of Swiss emigration of 1883 *and* 1884, *according to previous occupation or pursuit.*

Occupation or pursuit.	1884.								
	Adults.			Children.			Total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Agricultural, &c	2,487	808	3,295	635	492	1,127	3,122	1,300	4,442
Industrial	1,411	534	1,945	263	198	461	1,674	732	2,406
Commercial, &c	384	80	463	26	17	43	409	97	506
Official, professional, and artistic	63	47	110	7	8	15	70	55	125
Servants	6	364	370	4	10	14	10	374	384
Without occupation	453	676	1,129	336	300	636	789	976	1,765
Total	4,803	2,509	7,312	1,271	1,025	2,296	6,074	3,534	9,608
1883.									
Agricultural, &c	3,800	1,101	4,901	990	863	1,853	4,790	1,964	6,754
Industrial	1,702	479	2,181	352	317	669	2,054	796	2,850
Commercial, &c	285	41	326	25	21	46	310	62	372
Official, professional, and artistic	79	41	120	12	23	35	91	64	155
Servants	75	300	375	15	18	33	90	318	408
Without occupation	484	1,298	1,782	579	602	1,181	1,063	1,900	2,963
Total	6,425	3,260	9,685	1,973	1,844	3,817	8,398	5,104	13,502

Marriages, births, deaths, and increase of population in Switzerland, by cantons, during the year 1884.

Canton.	Population.	Marriages.	Births.	Still-births.	Deaths.						Excess of births over deaths.
					Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 60 years.	Over 60 years.	Total.	
Zurich	329,326	2,657	8,778	433	1,395	443	254	2,138	1,991	6,221	2,557
Berne	542,652	3,690	16,845	758	2,391	934	595	3,525	3,337	10,782	6,063
Lucerne	135,690	786	3,899	121	425	165	121	805	1,156	2,672	627
Uri	23,671	86	564	12	89	30	26	88	98	331	233
Schwyz	52,680	336	1,398	42	255	48	48	352	368	1,071	327
Unterwalden, Upper	15,693	71	326	7	29	36	26	56	124	271	55
Unterwalden, Lower	12,096	75	350	16	40	13	21	96	112	181	68
Glarus	34,213	267	754	51	115	37	20	228	180	580	174
Zug	23.711	140	616	20	97	33	22	180	142	474	142
Freiburg	117,037	745	3,607	123	658	140	87	709	822	2,416	1,191
Solothurn	82,470	551	2,534	72	410	85	77	518	511	1,601	933
Basel-Stadt	71,314	564	2,055	75	337	131	54	446	287	1,255	800
Basel-Land	61,115	436	1,902	77	366	105	40	347	335	1,193	709
Schaffhausen	38,573	202	1,013	45	195	90	44	199	262	790	223
Appenzell, Outer Rhodes	53,116	471	1,704	84	351	94	33	332	368	1,178	526
Appenzell, Inner Rhodes	13,175	87	428	11	99	21	5	109	98	332	96
St. Gallo	217,471	1,666	6,457	231	1,246	344	181	1,478	437	4,686	1,771
Graubünden	96,141	523	2,342	64	311	116	96	647	823	1,993	349
Aargau	198,564	1,136	4,977	192	748	253	141	1,152	1,516	3,810	1,167
Thurgau	101,792	738	2,753	106	422	153	103	532	746	1,856	797
Tessin	132,962	760	3,646	96	678	296	186	821	946	2,927	719
Waadt	241,249	1,633	6,656	280	1,042	383	220	1,562	1,664	4,871	1,785
Wallis	101,409	598	2,945	57	391	165	108				
Neufchatel	106,042	870	3,420								
Geneva	104,588										

Statement showing the excess of births over deaths in Switzerland, by cantons, to every 1,000 inhabitants.

Cantons.	1871–'75.	1876–'80.	1881.	1882.	1883.	1884.
Zurich	4.9	7.5	7.5	5.6	7.4	7.8
Berne	10.0	11.0	10.9	9.5	11.3	11.2
Lucerne	5.6	5.4	1.7	2.8	4.1	4.6
Uri	8.4	5.9	4.6	6.3	9.8	9.8
Schwyz	8.8	8.3	6.9	6.4	7.5	6.2
Unterwalden, Upper	7.7	11.1	5.6	4.8	5.8	3.5
Unterwalden, Lower	7.9	7.0	5.8	5.5	6.0	5.6
Glarus	7.1	6.8	1.9	5.5	4.3	5.1
Zug	5.2	6.3	4.6	8.7	7.7	6.0
Freiburg	5.1	8.2	9.1	7.8	9.6	10.2
Solothurn	8.6	9.9	8.4	8.1	9.6	11.3
Basel-Stadt	9.9	10.9	7.3	10.7	9.9	11.2
Basel-Land	9.4	12 0	9.7	10.0	11.4	11.6
Schaffhausen	8.3	11.8	7.8	10.2	11.3	5.8
Appenzell, Outer Rhodes	5.2	8.8	9.4	7.4	10.9	9.9
Appenzell, Inner Rhodes	7.6	7.9	2.3	3.4	3.8	7.3
St. Galle	5.2	7.3	7.2	6.5	7.9	8.1
Graubünden	4.7	4.5	5.4	3.3	5.1	3.6
Aargau	5.8	7.3	5.5	6.2	6.2	5.9
Thurgau	5.3	8.1	7.1	5.7	6.9	7.8
Tessin	4.3	6.9	4.5	5.0	6.3	5.4
Waadt	3.7	6.8	7.4	6.6	6.3	7.4
Wallis	8.0	9.7	10.1	8.4	9.7	10.8
Neufchatel	7.7	9.8	8.1	10.8	11.1	10.9
Geneva	1.0	2.4	2.9	0.8	0.7	2.8
Total	6.4	8.2	7.4	6.9	8.0	8.0

Excess of births over deaths per thousand inhabitants in Switzerland, as compared with other lands.

Land.	1871–'75.	1876–'80.	1881.	1882.	1883.
Switzerland	6.4	8.2	7.4	6.9	8.0
Prussia	11.1	13.9	12.0	12.1	11.3
Bavaria	8.3	10.8	9.8	9.2	7.8
Saxony	12.7	14.8	13.8	13.3	12.2
Wurtemberg	12.0	12.6	11.4	10.9	10.3
German Empire	12.0	13.1	11.5	11.4	10.6
Austria	6.8	8.2	7.0	8.3	8.0
Italy	6.3	7.4	10.3	9.4	9.0
France	0,6	2.9	2.9	2.6	2.6
Belgium	9.0	10.2	10.5	11.1	9.8
Holland	10.5	13.5	13.6	14.7	12.6
England	15.4	14.6	15.0	14.1	13.7
Denmark	11.2	12.5	13.9	12.9	13.3
Sweden	12.4	12.1	11.4	12.0	11.6
Norway	12.7	15.0	12.6	12.6	13.9

Statement showing percentage of illegitimate children born in Switzerland, by cantons, since 1871.

Cantons.	1871–'75.	1876–'80.	1881.	1882.	1883.	1884.
Zurich	1.7	5.2	5.1	5.4	5.8	5.7
Berne	5.7	5.6	5.7	5.4	5.7	5.5
Lucerne	7.5	4.9	5.0	5.3	5.2	5.3
Uri	2.3	3.2	5.8	4.8	3.7	2.4
Schwyz	3.1	2.6	3.2	3.0	3.2	2.2
Unterwalden, Upper	3.3	2.4	1.6	3.0	2.1	2.4
Unterwalden, Lower	3.1	2.3	2.4	2.3	2.4	2.5
Glarus	1.1	1.9	1.3	1.8	1.2	1.5
Zug	2.7	1.9	3.2	1.9	1.6	2.4
Freiburg	6.4	6.4	5.8	6.1	6.4	6.6
Solothurn	6.2	4.8	4.7	5.1	4.8	3.7
Basel-Stadt	11.9	11.2	8.6	11.2	10.3	10.1
Basel-Land	3.9	3.5	3.1	3.3	3.1	2.7
Schaffhausen	4.4	4.5	3.6	4.5	3.5	4.9
Appenzell, Outer Rhodes	3.5	3.3	4.0	2.9	3.2	3.8
Appenzell, Inner Rhodes	1.8	2.0	1.9	2.0	1.4	2.1
St. Gallo	3.0	3.1	3.6	3.8	3.9	3.8
Graubünden	3.9	4.1	4.2	4.2	3.2	4.7
Aargau	4.6	3.7	3.4	3.4	3.6	3.7
Thurgau	3.4	3.5	3.6	3.7	3.4	4.5
Tessin	2.0	3.5	1.2	3.4	2.6	3.0
Waadt	5.4	5.1	5.2	5.6	5.5	5.1
Wallis	3.7	3.8	3.9	3.3	4.5	3.7
Neuchatel	4.5	4.3	4.6	5.0	3.8	5.3
Geneva	12.0	10.5	11.2	12.1	11.4	11.5
Total	5.0	5.0	4.8	5.0	5.0	5.0

Statement showing percentage of illegitimate births in Switzerland, as compared with other lands.

Land.	1871–'75.	1876–'80.	1881.	1882.	1883.
Switzerland	5.0	5.0	4.8	5.0	5.0
Prussia	7.5	7.6	7.8	8.1	8.1
Bavaria	13.8	12.9	13.5	13.6	13.2
Saxony	13.3	12.6	12.8	13.2	12.9
Wurtemberg	9.6	8.3	8.9	8.9	8.9
German Empire	.....	8.8	9.1	9.3	9.2
Austria	12.4	14.0	14.5	14.6	14.6
Italy	7.1	7.3	7.4	7.6	7.9
France	7.5	7.4	7.8	7.9	.....
Belgium	7.1	7.5	7.9	8.2	8.1
Holland	3.5	3.2	2.9	3.0	3.1
England	5.3	4.8	4.9	4.9	4.8
Denmark	11.2	10.2	10.0	10.6	.....
Sweden	10.9	10.1	10.1	10.3	10.2
Norway	9.2	8.5	9.4	8.2	.....

Statistics of suicide in Switzerland.

Manner of suicide.	1881.	1882.	1883.	1884.		
				Male.	Female.	Total.
Drowning	675	688	682	119	49	168
Poison				14	5	19
Coal gas				4	1	5
Hanging				251	25	276
Shooting				116	3	119
Cutting or stabbing				23	4	27
Throwing self down				5	9	14
Railway				15		
Not definitely stated						
Total						

THE UNITED KINGDOM.

REPORT OF CONSUL HALE.

STATISTICS.

The statistics of emigration from the United Kingdom are obtained by the Government from records required to be kept by the emigration officers at the ports of embarkation. No effort is made to keep separate records for the movement from the different counties or districts, otherwise than to discriminate between the three chief divisions of the Kingdom, England (including Wales), Scotland, and Ireland, and foreigners, the latter meaning chiefly persons from the continent of Europe who ship from British and Irish ports. Even this discrimination was not made until 1853; no record was kept of the return immigration until 1870, and no discrimination between nationalities in the latter until 1876.

The statistics for this district, therefore, can only be inferred from those for the country at large, and these it will be necessary to consider first.

The last annual report of Mr. Giffen, the statistician of the Board of Trade, made to that body in February, contained the following tables:

I.—*Account of the numbers, nationalities, and destinations of passengers leaving the United Kingdom for places out of Europe, in* 1885, *in vessels under the passengers acts; including also passengers for places out of Europe, in vessels not under the acts, as far as the same have been recorded.*

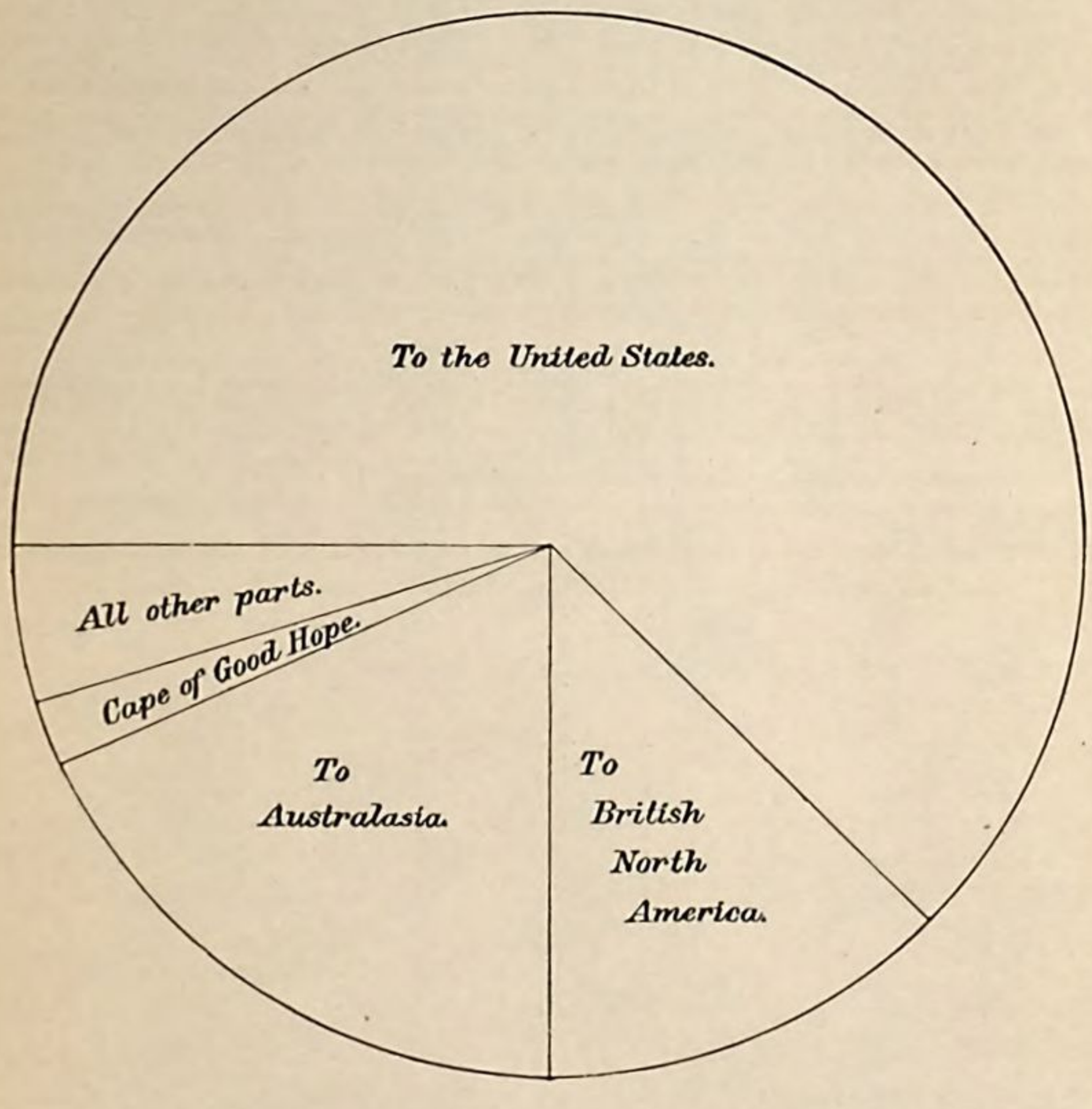
Nationality.	To United States.	To British North America.	To Australasia.	To Cape of Good Hope and Natal.	To all other places.	Total. 1885.	Total. 1884.
English	73,789	14,817	28,380	2,954	6,320	126,260	147,660
Scotch	13,241	2,345	4,731	275	775	21,367	21,953
Irish	50,657	2,676	6,284	39	361	60,017	72,566
Total British	137,687	19,838	39,395	3,268	7,456	207,644	242,179
Foreigners	46,779	3,090	1,294	692	1,928	53,783	57,733
Not distinguished	4	.....	.....	.....	2,954	2,958	3,989
Grand total	184,470	22,928	40,689	3,960	12,338	264,385	303,901

Cabin and steerage passengers.

Port of departure.	Cabin.	Steerage.	Total.
Liverpool	29,354	115,916	145,270
London	11,506	25,389	36,895
Plymouth and Dartmouth	1,511	9,378	10,889
Southampton	5,024	1,268	6,292
Glasgow and Greenock			23,427

Port of departure.	Cabin.	Steerage.	Total.
Belfast	520	2,518	3,038
Queenstown	428	27,931	28,359
Londonderry	327	8,624	8,951
Galway	.....	864	864
All other ports	108	292	400
Total	51,428	212,957	264,385

DISTRIBUTION OF EMIGRATION FROM THE UNITED KINGDOM IN 1884.



II.—*Account of the numbers of passengers as in the preceding table, showing the principal ports of the United Kingdom from which they embarked in* 1885, *with their principal places of destination.*

Name of port.	To United States.	To British North America.	To Australia and New Zealand.	To East Indies.	To British West Indies.	To Cape of Good Hope and Natal.	To Central and South America.	To all other places.	Total.
English ports:									
Liverpool	123,295	17,460	173	1,624	44	.....	1,616	1,058	145,270
London	1,751	883	28,636	2,578	278	1,748	17	1,004	36,895
Plymouth and Dartmouth	110	93	9,894	.....	.....	678	.....	114	10,889
Southampton	887	.....	.....	.....	1,064	1,534	2,288	519	6,292
Other ports in England	237	141	.....	.....	.....	.....	8	3	389
Total from ports in England	126,280	18,577	38,703	4,202	1,386	3,960	3,929	2,698	199,735
Scotch ports:									
Glasgow and Greenock	19,264	2,054	1,986	9	93	.....	.....	21	23,427
Other ports in Scotland	10	1	.....	.....	.....	.....	.....	.....	11
Total from ports in Scotland	19,274	2,055	1,986	9	93	.....	.....	21	23,438
Irish ports:									
Belfast	2,728	310	.....	.....	.....	.....	.....	.....	3,038
Queenstown	28,074	285	.....	.....	.....	.....	.....	.....	28,359
Londonderry	7,250	1,701	.....	.....	.....	.....	.....	.....	8,951
Galway	864	.....	.....	.....	.....	.....	.....	.....	864
Other ports in Ireland	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total from ports in Ireland	38,916	2,296	.....	.....	.....	.....	.....	.....	41,212
Grand total	184,470	22,928	40,689	4,211	1,479	3,960	3,929	2,719	264,385

III.—*Account of the number of passengers of each sex, as in the first table, distinguishing the nationalities, and the countries to which they emigrated in* 1885.

Nationality and sex.	To United States.	To British North America.	To Australia and New Zealand.	To East Indies.	To British West Indies.	To Cape of Good Hope and Natal.	To Central and South America.	To all other places.	Total.
English:									
Males	46,142	9,528	17,336	1,207	671	1,796	1,413	734	78,827
Females	27,647	5,239	11,044	849	430	1,158	608	408	47,432
Total	73,789	14,817	28,380	2,056	1,101	2,954	2,021	1,142	126,260
Scotch:									
Males	8,070	1,479	2,849	191	65	178	138	131	13,101
Females	5,171	866	1,882	105	31	97	65	49	8,266
Total	13,241	2,345	4,731	296	96	275	203	180	21,367
Irish:									
Males	24,346	1,590	3,651	95	14	23	68	31	29,818
Females	26,311	1,086	2,633	88	12	16	31	22	30,199
Total	50,657	2,676	6,284	183	26	39	99	53	60,017
Of British origin:									
Males	78,558	12,597	23,836	1,493	750	1,997	1,619	896	121,746
Females	59,129	7,241	15,559	1,042	473	1,271	704	479	85,898
Total	137,687	19,838	39,395	2,535	1,223	3,268	2,323	1,375	207,644
Foreigners:									
Males	29,754	1,980	804	46	128	464	846	216	34,238
Females	17,025	1,110	490	42	85	228	472	93	19,545
Total	46,779	3,090	1,294	88	213	692	1,318	309	53,783
Nationality not distinguished:									
Males	3	.....	.....	821	30	.....	200	831	1,885
Females	1	.....	.....	767	13	.....	88	204	1,073
Total	4	.....	.....	1,588	43	.....	288	1,035	2,958
Total males	108,315	14,577	24,640	2,360	908	2,461	2,665	1,943	157,869
Total females	76,155	8,351	16,049	1,851	571	1,499	1,264	776	106,516
Grand total	184,470	22,928	40,689	4,211	1,479	3,960	3,929	2,719	264,385

IV.—*An account in detail of the number and destination of passengers leaving the United Kingdom in* 1885, *as in the first table, showing the numbers of adults and children of each sex, and the conjugal conditions of the adults; these particulars being stated for English, Scotch, and Irish passengers separately and in the aggregate, and also for foreigners and other persons whose nationality has not been distinguished separately.*

Description of emigrant.	Destination. United States.	British North America.	Australia and New Zealand.	East Indies.	British West Indies.	Cape of Good Hope and Natal.	Central and South America.	All other places.	Total.
English.									
Adults:									
Married—									
Males	8,125	1,630	3,661	399	231	604	442	256	15,048
Females	11,203	1,842	4,079	394	201	474	262	187	18,642
Single—									
Males	31,444	6,543	11,091	655	357	963	824	420	52,297
Females	10,484	2,049	4,201	334	175	445	230	173	18,091
Total adults	61,256	12,064	22,732	1,782	964	2,486	1,758	1,036	104,078
Children from one to twelve years and infants:									
Males	6,573	1,355	2,884	153	83	229	147	58	11,482
Females	5,960	1,398	2,764	121	54	239	116	48	10,700
Total English	73,789	14,817	28,380	2,056	1,101	2,954	2,021	1,142	126,260
Scotch.									
Adults:									
Married—									
Males	926	207	550	114	14	55	37	35	1,938
Females	1,966	277	602	57	14	50	30	25	3,021
Single—									
Males	5,689	907	1,773	71	44	111	87	87	8,769
Females	1,877	311	829	34	8	34	17	17	3,127
Total adults	10,458	1,702	3,754	276	80	250	171	164	16.855
Children from one to twelve years and infants:									
Males	1,455	365	526	6	7	12	14	9	2,394
Females	1,328	278	451	14	9	13	18	7	2,118
Total Scotch	13,241	2,345	4,731	296	96	275	203	180	21,367
Irish.									
Adults:									
Married—									
Males	1,977	205	369	64	7	5	16	15	2,658
Females	3,401	290	394	51	6	6	10	10	4,168
Single—									
Males	19,304	1,124	2,982	26	1	14	48	12	23,511
Females	19,823	592	1,983	27	4	6	18	10	22,463
Total adults	44,505	2,211	5,728	168	18	31	92	47	52,800
Children from one to twelve years and infants:									
Males	3,065	261	300	5	6	4	4	4	3,649
Females	3,087	204	256	10	2	4	3	2	3,568
Total Irish	50,657	2,676	6,284	183	26	39	99	53	60,017
Of British origin.									
Adults:									
Married—									
Males	11,028	2,042	4,280	577	252	664	495	306	19,644
Females	16,570	2,409	5,075	502	221	530	302	222	25,831
Single—									
Males	5,437	8,574	15,846	752	402	1,088	959	519	84,577
Females	36,184	2,952	7,013	395	187	485	265	200	43,681
Total adults	116,219	15,977	32,214	2,226	1,062	2,767			
Children from one to twelve years and infants:									
Ma									

IV—*An account in detail of the number and destination of passengers leaving the United Kingdom in* 1885, *&c.*—Continued.

Description of emigrant.	Destination.								
	United States.	British North America.	Australia and New Zealand.	East Indies.	British West Indies.	Cape of Good Hope and Natal.	Central and South America.	All other places.	Total.
Foreigners.									
Adults:									
Married—									
Males	4,070	340	137	24	59	153	339	70	5,192
Females	5,049	407	155	5	38	88	197	37	*5,976*
Single—									
Males	21,010	1,190	484	21	53	274	367	134	23,533
Females	8,218	364	177	35	36	86	128	47	9,091
Total adults	38,347	2,301	953	85	186	601	1,031	288	43,792
Children from one to twelve years, and infants:									
Males	44,674	450	183	1	16	37	140	12	5,513
Females	3,758	339	358	2	11	54	147	9	4,478
Total foreigners	46,779	3,090	1,294	88	213	692	1,318	309	53,783
Nationality not distinguished.									
Adults:									
Married—									
Males	------	------	------	211	10	------	31	341	593
Females	------	------	------	357	8	------	32	109	506
Single—									
Males	3	------	------	425	16	------	65	387	896
Females	1	------	------	306	3	------	22	67	399
Conjugal condition not stated—									
Males	------	------	------	38	------	------	78	59	175
Females	------	------	------	------	------	------	14	------	14
Total adults	4	------	------	1,337	37	------	242	963	2,583
Children from one to twelve years and infants:									
Males	------	------	------	147	4	------	26	44	221
Females	------	------	------	104	2	------	20	28	154
Total nationality not distinguished	4	------	------	1,588	43	------	288	1,035	3,958
Total adults:									
Married—									
Males	15,098	2,382	4,417	812	321	817	895	717	25,429
Females	21,619	2,816	5,230	864	267	618	531	368	*32,313*
Single—									
Males	77,450	9,764	16,330	1,298	471	1,362	1,391	1,040	109,006
Females	40,403	3,316	7,190	736	226	571	415	314	53,171
Conjugal condition not stated—									
Males	------	------	------	38	------	------	78	59	175
Females	------	------	------	------	------	------	14	------	14
Total adults	154,570	18,278	33,167	3,648	1,285	3,368	3,294	2,498	220,108
Children from one to twelve years and infants:									
Males	15,767	2,431	3,893	312	116	282	331	127	23,259
Females	14,133	2,219	3,629	251	78	310	304	94	21,018
Grand total	184,470	22,928	40,689	4,211	1,479	3,960	3,929	2,719	264,385

V.—*Statement of occupations and general destination of adult* passengers of each sex leaving the United Kingdom in* 1885, *as in the first table, so far as can be ascertained.*

Occupation.	British and Irish origin.					Foreigners.				
	United States.	British North America.	Australasia.	All other places.	Total.	United States.	British North America.	Australasia.	All other places.	Total.
Adult males.										
Agricultural laborers, gardeners, carters, &c	5,450	351	3,258	28	9,087	645	10	55	8	718
Bakers, confectioners, &c	94	2	324	10	430	9	.....	12	4	25
Blacksmiths and farriers	79	5	158	8	250	4	.....	3	.....	7
Boot and shoe makers	80	3	162	34	279	12	.....	11	1	24
Braziers, tinsmiths, white smiths, &c	17	.....	48	3	68	8	.....	.....	.....	8
Brick and tile makers, potters, &c	16	.....	29	.....	45	1	.....	.....	.....	1
Bricklayers, masons, plasterers, slaters, &c	671	17	390	20	1,098	70	.....	16	8	94
Builders	34	.....	83	2	119	1	.....	3	1	5
Butchers, poulterers, &c	111	1	82	4	198	20	1	2	.....	23
Cabinet-makers and upholsterers.	40	.....	70	.....	110	.....	.....	3	.....	3
Carpenters and joiners	526	56	740	52	1,374	62	2	23	5	92
Clerks and agents	1,436	54	1,122	237	2,849	101	1	30	40	172
Clock and watch makers and jewelers	48	.....	27	16	91	19	.....	2	5	26
Coach makers and trimmers	6	.....	33	.....	39	1	.....	.....	1	2
Coopers	8	.....	12	.....	20	.....	.....	1	.....	1
Domestic servants	305	12	132	46	495	69	.....	3	19	91
Engine drivers, stokers, &c	45	.....	87	10	142	6	.....	2	.....	8
Engineers	183	9	301	181	674	5	.....	5	36	46
Farmers and graziers	3,518	285	1,219	201	5,223	1,550	17	30	148	1,745
Founders, iron and brass, molders, &c	52	.....	62	2	116	3	.....	3	1	7
Gentlemen, professional men, merchants, &c	3,736	1,998	1,649	2,058	9,441	771	2	23	289	1,085
Laborers, general	25,506	4,144	3,017	140	32,807	15,514	773	174	43	16,504
Mechanics	3,731	123	528	91	4,473	821	.....	15	49	885
Millers, malsters, &c	40	2	37	3	82	35	.....	1	1	37
Miners and quarrymen	2,257	1	860	207	3,325	711	.....	12	62	785
Painters, paper-hangers, plumbers, and glaziers	314	2	285	1	602	62	.....	10	.....	72
Printers	58	2	65	14	139	12	.....	2	3	17
Saddlers and harness-makers	18	1	21	4	44	1	.....	1	.....	2
Sawyers	15	.....	19	.....	34	.....	.....	.....	.....	.....
Seamen	186	41	93	10	330	30	.....	22	10	62
Shipwrights	10	.....	18	.....	28	.....	.....	.....	.....	.....
Shopkeepers, shopmen, warehousemen, &c	480	25	602	158	1,265	32	.....	16	61	109
Smiths, general	97	1	29	5	132	44	.....	2	1	47
Spinners and weavers	198	2	30	1	231	28	.....	3	.....	31
Tailors	123	4	137	54	318	68	.....	8	2	78
Tanners and curriers	15	.....	12	1	28	4	.....	.....	.....	4
Turners	21	.....	12	.....	33	5	.....	.....	.....	5
Wheelwrights and millwrights	12	.....	38	.....	50	.....	.....	2	.....	2
Army and Navy:										
Officers	1	8	9	309	327	1	.....	.....	.....	1
Men	3	7	19	18	47	.....	.....	.....	.....	.....
Other trades and professions	622	6	466	205	1,299	182	1	24	39	246
Males, occupation not stated	17,303	3,454	3,841	1,881	26,479	4,173	723	102	657	5,655
Adult females.										
Domestic and farm servants, nurses, &c	14,915	550	3,920	208	19,593	3,070	177	114	99	3,460
Gentlewomen and governesses	52	2	53	38	145	6	.....	.....	5	11
Milliners, dressmakers, needlewomen, &c	357	3	136	41	537	85	.....	1	2	88
Shopwomen	23	.....	15	7	45	3	.....	.....	.....	3
Spinners and weavers	78	1	13	.....	92	3	.....	.....	.....	3
Other trades and professions	83	6	98	78	265	35	.....	3	32	70
Females, occupation not stated	33,246	4,799	7,853	2,037	48,935					
Total										

V.—*Statement of occupations, &c.*—Continued.

Occupation.	Nationality not distinguished.			Total.				
	United States.	All other places.	Total.	United States.	British North America.	Australasia.	All other places.	Total.
Adult males.								
Agricultural laborers, gardeners, carters, &c	----	------	------	6,095	361	3,313	36	9,805
Bakers, confectioners, &c	----	------	------	103	2	336	14	455
Blacksmiths and farriers	----	------	------	83	5	161	8	257
Boot and shoe makers	----	------	------	92	3	173	35	303
Braziers, tinsmiths, whitesmiths, &c	----	------	------	25	------	47	3	76
Brick and tile-makers, potters, &c	----	------	------	17	------	29	------	46
Bricklayers, masons, plasterers, slaters, &c	----	------	------	741	17	406	28	1,192
Builders	----	------	------	35	------	86	3	124
Butchers, poulterers, &c	----	------	------	131	2	84	4	221
Cabinet-makers and upholsterers	----	1	1	40	------	73	------	113
Carpenters and joiners	----	130	130	588	58	763	58	1,467
Clerks and agents	----	------	------	1,537	55	1,152	407	3,151
Clock and watch makers and jewelers	----	------	------	67	------	29	21	117
Coach makers and trimmers	----	------	------	7	------	33	1	41
Coopers	----	20	20	8	------	13	------	21
Domestic servants	----	------	------	374	12	135	85	606
Engine drivers, stokers, &c	----	23	23	51	------	89	10	150
Engineers	----	------	------	188	9	306	240	743
Farmers and graziers	----	------	------	5,068	302	1,249	349	6,968
Founders, iron and brass, molders, &c	1	442	443	55	------	65	3	123
Gentlemen, professional men, merchants, &c	----	1	1	4,508	2,000	1,672	2,789	10,969
Laborers, general	----	4	4	41,020	4,917	3,191	184	49,312
Mechanics	----	------	------	4,552	123	543	144	5,362
Millers, maltsters, &c	----	1	1	75	2	38	4	119
Miners and quarrymen	----	------	------	2,968	1	872	270	4,111
Painters, paper-hangers, plumbers, and glaziers	----	------	------	376	2	295	1	674
Printers	----	------	------	70	2	67	17	156
Saddlers and harness-makers	----	------	------	19	1	22	4	46
Sawyers	----	5	5	15	------	19	------	34
Seamen	----	------	------	216	41	115	25	397
Shipwrights	----	------	------	10	------	18	------	28
Shopkeepers, shopmen, warehousemen, &c	----	------	------	512	25	618	219	1,374
Smiths, general	----	------	------	141	1	31	6	179
Spinners and weavers	----	------	------	226	2	33	1	262
Tailors	----	------	------	191	4	145	56	396
Tanners and curriers	----	------	------	19	------	12	1	32
Turners	----	------	------	26	------	12	------	38
Wheelwrights and millwrights	----	72	72	12	------	40	------	52
Army and navy, officers	----	7	7	2	8	9	381	400
Army and navy, men	----	16	16	3	7	19	25	54
Other trades and professions	----	939	941	804	7	490	260	1,561
Males, occupation not stated	2			21,478	4,177	3,943	3,477	33,075
Adult females.								
Domestic and farm servants, nurses, &c	----	122	122	17,985	727	4,034	429	23,175
Gentlewomen and governesses	----	2	2	58	2	53	45	158
Milliners, dressmakers, needlewomen, &c	----	------	------	442	3	137	43	625
Shopwomen	----	------	------	26	------	15	7	48
Spinners and weavers	----	------	------	81	1	13	------	95
Other trades and professions	----	24	24	118	6	101	134	359
Females, occupation not stated	1	770	771	43,312	5,393	8,067	4,266	61,038
Total adults	4	2,579	2,583	154,570	18,278	33,167	14,093	220,168

VI.—*Statement of sums of money recovered for emigrants by the emigration officers during the year* 1885, *under the forty-ninth section of the passengers act,* 1855, *without resort to legal proceedings.*

Emigration officers at—	Amounts recovered.
	£ s. d.
Liverpool	486 12 0
London	347 15 11
Glasgow	186 6 8
Londonderry	90 1 5
Total	1,110 16 00

VII.—*Amount of money remitted by settlers in the United States and British North America to their friends in the United Kingdom, in each year from* 1848 (*the first year for which there is any information*) *to* 1885, *both inclusive, as far as ascertained.**

Year.	Amount.	Year.	Amount.	Year.	Amount.
1848	£460, 000	1862	£360, 578	1876	£449, 641
1849	540, 000	1863	383, 286	1877	667, 564
1850	957, 000	1864	332, 172	1878	784, 067
1851	990, 000	1865	481, 580	1879	855, 631
1852	1, 404, 000	1866	498, 028	1880	1, 403, 341
1853	1, 439, 000	1867	543, 029	1881	1, 505, 794
1854	1, 730, 000	1868	530, 564	1882	1, 573, 552
1855	873, 000	1869	639, 335	1883	1, 611, 201
1856	951, 000	1870	727, 408	1884	1, 575, 756
1857	593, 165	1871	702, 488	1885	1, 241, 585
1858	472, 610	1872	749, 664		
1859	520, 019	1873	724, 040	Total	31, 018, 587
1860	534, 476	1874	485, 566		
1861	374, 061	1875	354, 356		

VIIA.—*Amount of money remitted by settlers in Australia and other places to their friends in the United Kingdom, in each year from* 1875 (*the first year for which there is any information*) *to* 1885, *both inclusive, as far as ascertained.**

Year.	Amount.	Year.	Amount.	Year.	Amount.
1875	£7, 999	1880	71, 407	1885	51, 324
1876	25, 745	1881	71, 013		
1877	77, 052	1882	125, 206	Total	637, 259
1878	51, 602	1883	63, 289		
1879	51, 378	1884	61, 244		

*The information given in Tables VII and VIIA was obtained through the courtesy of banks and mercantile houses, but there are no means of ascertaining the amount of money sent through private hands and such mercantile houses as declined to give the information.

VIII.—*Account of the number of persons that arrived in this country from places out of Europe, so far as recorded, showing their nationality and the countries whence they came, in* 1885.

Nationality.	Countries whence arrived.					Total, 1885.	Total, 1884.
	United States.	British North America.	Australasia.	Cape of Good Hope and Natal.	All other places.		
British and Irish	57,604	9,321	7,946	4,574	6,023	85,468	91,356
Foreigners	23,846	758	326	898	1,178	27,006	32,007
Not distinguished	.....	.....	.....	.....	1,075	1,075	103
Total	81,450	10,079	8,272	5,472	8,276	113,549	123,466

IX.—*Balance of recorded emigration and immigration to and from the following places in* 1885.

Country.	Comparing total emigration with total recorded immigration.				Comparing emigration and immigration of persons of British and Irish origin only.			
	Emigrants.	Immigrants.	Excess of—		Emigrants.	Immigrants.	Excess of—	
			Emigrants.	Immigrants.			Emigrants.	Immigrants.
United States	184,470	81,450	103,020	.....	137,687	57,604	80,083	.....
British North America	22,928	10,079	12,849	.....	19,838	9,321	10,517	.....
Australasia	40,689	8,272	32,417	.....	39,395	7,946	31,449	.....
Cape of Good Hope and Natal	3,960	5,472	.....	1,512	3,268	4,574	.....	1,306
All other places	12,338	8,276	4,062	.....	7,456	6,023	1,433	.....
Total	264,385	113,549	150,836	.....	207,644	85,468	122,176	.....

X.—*Account showing the sex and nationality of the immigrants that arrived in this country from places out of Europe in* 1885, *and the countries whence they came.*

Description of immigrants.	Countries whence arrived.					Total.
	United States.	British North America.	Australasia.	Cape of Good Hope and Natal.	All other places.	
British and Irish origin.						
Adults:						
Males	33,878	5,653	4,565	2,555	3,318	49,969
Females	16,998	2,456	2,229	1,098	1,584	24,365
Children:						
Males	3,457	648	593	451	577	5,726
Females	3,271	564	559	470	544	5,408
Total:						
Males	37,335	6,301	5,158	3,006	3,895	55,695
Females	20,269	3,020	2,788	1,568	2,128	29,773
Total British and Irish	57,604	9,321	7,946	4,574	6,023	85,468
Foreigners.						
Adults:						
Males	15,338	608	216	604	717	17,483
Females	6,468	86	65	156	359	7,134
Children:						
Males	1,043	35	17	84	63	1,242
Females	997	29	28	54	39	1,147
Total:						
Males	16,381	643	233	688	780	18,725
Females	7,465	115	93	210	398	8,281
Total foreigners	23,846	758	326	898	1,178	27,006
Nationality not distinguished.						
Adults:						
Males	.....	.....	.....	.....	842	842
Females	.....	.....	.....	.....	151	151
Children:						
Males	.....	.....	.....	.....	44	44
Females	.....	.....	.....	.....	38	38
Total:						
Males	.....	.....	.....	.....	886	886
Females	.....	.....	.....	.....	189	189
Total nationality not distinguished	.....	.....	.....	.....	1,075	1,075
Total.						
Adults:						
Males	49,216	6,261	4,781	3,159	4,877	68,294
Females	23,466	2,542	2,294	1,254	2,094	31,650
Children:						
Males	4,500	683	610	535	684	7,012
Females	4,268	593	587	524	621	6,593
Total:						
Males	53,716	6,944	5,391	3,694	5,561	75,306
Females	27,734	3,135	2,881	1,778	2,715	38,243
Grand total	81,450	10,079	8,272	5,472	8,276	113,549

XI.—*General statement of emigration from the United Kingdom from 1815 to 1885, including British subjects and foreigners, with the destination of the emigrants.*

[Prior to 1853 the nationalities were not distinguished, and this table is divided into two periods, one before the other after 1853, so as to facilitate comparison with the succeeding table, which shows the emigration of persons of British origin only.]

Year or period.	United States.	British North America.	Australia.	All other places.	Total.
1815–'20 (inclusive)	50,359	70,438	(*)	2,731	123,528
1821–'30 (inclusive)	99,801	139,269	*6,417	1,805	247,292
1831–'40 (inclusive)	308,247	322,485	67,882	4,536	703,150
1841–'50 (inclusive)	1,094,556	429,044	127,124	34,168	1,684,892
1851	267,357	42,605	21,532	4,472	335,966
1852	244,261	32,873	87,881	3,749	368,746
Total, 1815–'52	2,064,581	1,036,714	310,836	51,461	3,463,592
Total, 1853–'60	983,625	159,807	397,389	41,654	1,582,475
Total, 1861–'70	1,424,466	195,250	280,198	67,656	1,967,570
1871	198,843	32,671	12,227	8,694	252,435
1872	233,747	32,205	15,876	13,385	295,213
1873	233,073	37,208	26,428	13,903	310,612
1874	148,161	25,450	53,958	13,445	241,014
1875	105,046	17,378	35,525	15,860	173,809
1876	75,533	12,327	33,191	17,171	138,222
1877	64,027	9,289	31,071	15,584	119,971
1878	81,557	13,836	37,214	15,056	147,663
1879	134,590	22,509	42,178	17,886	217,163
1880	257,274	29,340	25,438	20,242	332,294
Total, 1871–'80	1,531,851	232,213	313,106	151,226	2,228,396
1881	307,973	34,551	24,093	25,887	392,514
1882	295,539	53,475	38,604	25,670	413,288
1883	252,226	53,566	73,017	18,348	397,157
1884	203,519	37,043	45,944	17,395	303,901
1885	184,470	22,928	40,689	16,298	264,385
Total, 1853–'85	5,183,669	788,843	1,213,040	364,134	7,548,686
Grand total, 1815–'85	7,248,250	1,825,557	1,523,876	415,595	11,013,278

* The customs returns do not record any emigration to Australia during the years 1815 to 1824, inclusive, but it appears from other sources that there went out in 1821, 320; in 1822, 875; in 1823, 543; in 1824, 780, and in 1825, 458 persons. These numbers have not been included in the totals of this table.

XII.—*Statement showing the number and percentage of persons of British and Irish origin only, who left the United Kingdom for the United States, British North America, Australasia, and all other places, in each year from* 1853 *to* 1885, *inclusive.*

[Prior to 1853 the nationalities were not given.]

Years.	United States.		British North America.		Australasia.		All other places.		Total.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
1853	190,952	69	31,779	11	54,818	20	580	.....	278,129
1854	153,627	58	35,679	13	77,256	29	215	.....	267,047
1855	86,239	57	16,110	11	47,284	32	390	.....	150,023
1856	94,931	64	11,299	8	41,329	28	725	.....	148,284
1857	105,516	58	16,803	9	57,858	32	874	1	181,051
1858	49,356	52	6,504	7	36,454	38	2,753	3	95,067
1859	57,096	59	2,469	3	28,604	29	8,924	9	97,093
1860	67,879	71	2,765	3	21,434	22	3,911	4	95,989
Total, 1853–1860	805,596	61	123,408	10	365,307	28	18,372	1	1,312,683
1861	38,160	58	3,953	6	20,597	32	2,487	4	65,197
1862	48,726	50	8,328	8	38,828	40	1,881	2	97,763
1863	130,528	68	9,665	5	50,157	26	2,514	1	192,864
1864	130,165	70	11,371	6	40,073	21	5,472	3	187,081
1865	118,463	68	14,424	8	36,683	21	5,321	3	174,891
1866	131,840	77	9,988	6	23,682	14	4,543	3	170,053
1867	126,051	80	12,160	8	14,023	9	4,748	3	156,982
1868	108,490	78	12,332	9	12,332	9	5,033	4	138,187
1869	146,737	79	20,921	11	14,457	8	4,185	2	186,300
1870	153,466	76	27,168	13	16,526	8	5,351	3	205,511
Total, 1861–1870	1,132,626	72	130,310	8	267,358	17	41,535	3	1,571,829
1871	150,788	78	24,954	13	11,695	6	5,314	3	192,751
1872	161,782	77	24,382	12	15,248	7	9,082	4	210,494
1873	166,730	63	29,045	13	25,137	11	7,433	3	228,345
1874	113,774	58	20,728	10	52,581	27	10,189	5	197,272
1875	81,193	58	12,306	9	34,750	24	12,426	9	140,675
1876	54,554	50	9,335	9	32,196	29	13,384	12	109,469
1877	45,481	48	7,720	8	30,138	32	11,856	12	95,195
1878	54,694	49	10,652	9	36,479	32	11,077	10	112,902
1879	91,806	56	17,952	11	40,959	25	13,557	8	164,274
1880	166,570	73	20,902	9	24,184	11	15,886	7	227,542
Total, 1871–1880	1,087,372	65	177,976	11	303,367	18	110,204	6	1,678,919
1881	176,104	73	23,912	10	22,682	9	20,304	8	243,002
1882	181,903	65	40,441	15	37,289	13	19,733	7	279,366
1883	191,573	60	44,185	14	71,264	22	13,096	4	320,118
1884	155,280	64	31,134	13	44,255	18	11,510	5	242,179
1885	137,687	66	19,838	10	39,395	19	10,724	5	207,644
Grand total, 1853–'85	3,868,141	66	591,204	10	1,150,917	20	245,478	4	5,855,740

XIII.—*Statement showing the proportion to the population of the emigration from the United Kingdom of persons of British origin only, for each year from 1853 to 1885, inclusive, with the averages for each quinquennial and decennial period.*

[This table shows the gross emigration only, and is subject to the qualification that recorded immigration in recent years is much larger than formerly.]

Year or quinquennial period.	Estimated population at middle of each year and quinquennial or other period.	Emigration of each year and average annual emigration of quinquennial or other period.	Proportion of emigration to population.
			P. ct.
1853	27,542,588	278,129	1.01
1854	27,658,704	267,047	.97
1855	27,821,730	150,023	.54
Average, 1853–'55	27,674,341	231,733	.84
1856	28,011,034	148,284	.53
1857	28,188,280	181,051	.64
1858	28,389,770	95,067	.33
1859	28,590,224	97,093	.34
1860	28,778,411	95,989	.33
Average, 1856–'60	28,391,544	123,497	.43
Average, 1853'–60	28,122,593	164,085	.58
1861	28,977,133	65,197	.22
1862	29,243,610	97,763	.33
1863	29,470,969	192,864	.65
1864	29,680,437	187,081	.63
1865	29,925,177	174,891	.58
Average, 1861–'65	29,459,465	143,559	.48
1866	30,147,755	170,053	.56
1867	30,409,132	156,982	.52
1868	30,689,977	138,187	.45
1869	30,978,278	186,300	.60
1870	31,256,535	202,511	.65
Average, 1866–'70	30,696,335	170,807	.56
Average, 1861–'70	30,077,900	157,183	.52

Year or quinquennial period.	Estimated population at middle of each year and quinquennial or other period.	Emigration of each year and average annual emigration of quinquennial or other period.	Proportion of emigration to population.
			P. ct.
1871	31,555,694	192,751	.61
1872	31,874,183	210,494	.66
1873	32,177,550	228,345	.71
1874	32,501,517	197,272	.61
1875	32,838,758	140,675	.43
Average, 1871–'75	32,189,540	193,907	.60
1876	33,199,994	109,469	.33
1877	33,575,941	95,195	.28
1878	33,943,773	112,902	.33
1879	34,302,557	164,274	.48
1880	34,622,930	227,542	.66
Average, 1876–'80	33,929,039	141,876	.42
Average, 1871–'80	83 059,290	167,892	.51
1881	34,952,204	243,002	.70
1882	35,297,114	279,366	.79
1883	35,611,770	320,118	.90
1884	35,961,540	242,179	.67
1885	36,325,115	207,644	.57
Average, 1881–'85	35,629,549	258,462	.73
Average, 1876–'85	34,779,294	200,169	.58

XIV.—*Statement showing in detail the destinations of persons who left the United Kingdom for places out of Europe since the 1st January, 1853, distinguishing English, Scotch, Irish, and foreigners.*

TO UNITED STATES.

Nationalities.	Annual average, 1853–'60.	Annual average, 1861–'70.	Annual average, 1871–'80.	1880.	1881.	1882.	1883.	1884.	1885.	Total for thirty-three years, 1853–'85.
Of British origin:										
English	24,460	36,511	54,975	69,081	90,527	94,599	93,392	83,324	73,789	1,546,185
Scotch	4,383	7,667	8,807	14,471	18,238	19,004	15,332	12,752	13,241	278,366
Irish	71,856	69,084	44,955	83,018	67,339	68,300	82,849	59,204	50,657	2,043,590
							191,573	155,280	137,687	3,868,141
										141,166

XIV.—*Statement showing in detail the destinations of persons who left the United Kingdom for places out of Europe since the 1st of January, 1853, &c.*—Continued.

TO BRITISH NORTH AMERICA.

Nationalities.	Annual average, 1853-'60.	Annual average, 1861-'70.	Annual average, 1871-'80.	1880.	1881.	1882.	1883.	1884.	1885.	Total for thirty-three years, 1853-'85.
Of British origin:										
English	3,791	6,589	12,638	13,541	17,164	27,763	27,995	23,463	14,817	333,802
Scotch	3,550	2,434	2,581	3,221	3,182	4,630	3,871	3,163	2,345	95,743
Irish	8,085	4,008	2,578	4,140	3,566	8,048	12,319	4,508	2,676	161,659
Total of British origin	15,426	13,031	17,797	20,902	23,912	40,441	44,185	31,134	19,838	591,204
Foreigners	1,199	3,978	5,334	8,434	10,649	13,034	9,381	5,866	3,090	144,736
Not distinguished	3,351	2,516	89	4	.....	.....	.....	43	.....	52,903
Total	19,976	19,525	23,220	29,340	34,561	53,475	53,566	37,043	22,928	788,843

TO AUSTRALASIA.

Of British origin:										
English	27,311	14,211	20,035	15,176	15,704	24,345	50,201	30,967	28,380	710,542
Scotch	6,829	4,233	4,107	3,059	2,433	6,240	10,975	4,952	4,731	167,367
Irish	11,523	8,292	6,195	5,949	4,545	6,704	10,088	8,336	6,284	273,008
Total of British origin	45,663	26,736	30,337	24,184	22,682	37,289	71,264	44,255	39,395	1,150,917
Foreigners	1,077	574	928	1,253	1,410	1,307	1,753	1,659	1,294	31,185
Not distinguished	2,934	697	46	1	1	8	.....	30	.....	30,938
Total	49,674	28,020	31,311	25,438	24,093	38,604	73,017	45,944	40,689	1,213,040

TO ALL OTHER PLACES.

Of British origin:										
English	1,241	3,205	9,408	14,047	16,581	16,285	11,648	9,906	9,274	199,747
Scotch	428	474	1,070	1,305	2,973	2,368	961	1,086	1,050	27,314
Irish	627	474	542	534	750	1,080	487	518	400	18,417
Total of British origin	2,296	4,153	11,020	15,886	20,304	19,733	13,096	11,510	10,724	245,478
Foreigners	85	1,028	2,122	1,881	2,621	2,979	2,058	2,002	2,620	44,462
Not distinguished	2,826	1,584	1,980	2,475	2,962	2,958	3,194	3,883	2,954	74,194
Total	5,207	6,765	15,122	20,242	25,887	25,670	18,348	17,395	16,298	364,134

TO ALL PLACES.

Of British origin:										
English	56,803	60,517	97,056	111,845	139,976	162,992	183,236	147,660	126,260	2,790,276
Scotch	15,191	14,808	16,565	22,056	26,826	32,242	31,139	21,953	21,367	568,790
Irish	92,091	81,858	54,270	93,641	76,200	84,132	105,743	72,566	60,017	2,496,674
Total of British origin	164,085	157,183	167,891	227,542	243,002	279,366	320,118	242,179	207,644	5,855,740
Foreigners	14,419	28,431	50,270	100,369	144,381	130,029	73,260	57,733	53,783	1,361,549
Not distinguished	19,305	11,143	4,677	4,383	5,131	3,893	3,779	3,989	2,958	332,397
Total	197,809	196,757	222,838	332,294	392,514	413,288	397,157	303,901	264,385	7,549,686

XV.—*Statement showing the number of persons of English, Scotch, and Irish origin that left the United Kingdom for places out of Europe, with the proportion that the number of each nationality is of the total of such persons, in each of the years from 1853 to 1885, inclusive.*

Year or period.	English.		Scotch.		Irish.		Total British and Irish.
	Number.	Percentage of total.	Number.	Percentage of total.	Number.	Percentage of total.	
1853	62,915	23	22,605	8	192,609	69	278,129
1854	90,966	34	25,872	10	150,209	56	267,047
1855	57,132	38	14,037	9	78,854	53	150,023
Total, 1853–'55	211,013	30	62,514	9	421,672	61	695,199
1856	64,527	44	12,033	8	71,724	48	148,284
1857	78,560	43	16,253	9	86,238	48	181,051
1858	39,971	42	11,815	12	43,281	46	95,067
1859	33,930	35	10,182	10	52,981	55	97,093
1860	26,421	28	8,733	9	60,835	63	95,989
Total, 1856–'60	243,409	39	59,016	10	315,059	51	617,484
1861	22,145	34	6,730	10	36,322	56	65,197
1862	35,487	36	12,596	13	49,680	51	97,763
1863	61,243	32	15,230	8	116,391	60	192,864
1864	56,618	30	15,035	8	115,428	62	187,081
1865	61,345	35	12,870	7	100,676	58	174,891
Total, 1861–'65	236,838	33	62,461	9	418,497	58	717,796
1866	58,856	35	12,307	7	98,890	58	170,053
1867	55,494	35	12,866	8	88,622	57	156,982
1868	58,268	42	14,954	11	64,965	47	138,187
1869	90,416	49	22,559	12	73,325	39	186,300
1870	105,293	52	22,935	11	74,283	37	202,511
Total, 1866–'70	368,327	43	85,621	10	400,085	47	854,033
1871	102,452	53	19,232	10	71,067	37	192,751
1872	118,190	56	19,541	9	72,763	35	210,494
1873	123,343	54	21,310	9	83,692	37	228,345
1874	116,490	59	20,286	10	60,496	31	197,272
1875	84,540	60	14,686	10	41,449	30	140,675
Total, 1871–'75	545,015	56	95,055	10	329,467	34	969,537
1876	73,396	67	10,097	9	25,976	24	109,469
1877	63,711	67	8,653	9	22,831	24	95,195
1878	72,323	64	11,087	10	29,492	26	112,902
1879	104,275	64	18,703	11	41,296	25	164,274
1880	111,845	49	22,056	10	93,641	41	227,542
Total, 1876–'80	425,550	60	70,596	10	213,236	30	709,382
1881	139,976	58	26,826	11	76,200	31	243,002
1882	162,992	58	32,242	12	84,132	30	279,366
1883	183,236	57	31,139	10	105,743	33	320,118
1884	147,660	61	21,953	9	72,566	30	242,179
1885	126,260	61	21,367	10	60,017	29	207,644
Total, 1881–'85	760,124	59	133,527	10	398,658	31	1,292,309
Grand total, 1853–'85 (33 years)	2,790,276	48	568,790	10	2,496,674	42	5,855,740

XVI.—*Statement showing in detail, for English, Scotch, Irish, and foreign emigrants in each of the years* 1877 *to* 1885, *the number and sex of adult emigrants, the excess of males over females, and the number of children, compared with the total number of emigrants.*

Nationalities.	Years.	Total number of emigrants.	Adults.			Children and infants.	
			Males.	Females.	Excess of males over females.	Total number.	Proportion of children to total emigrants.
							Per cent.
English	1877	63,711	34,230	18,768	15,462	10,713	16.8
	1878	72,323	39,872	20,721	19,151	11,730	16.2
	1879	104,275	59,007	26,662	32,345	18,606	17.8
	1880	111,845	59,150	31,018	28,132	21,677	19.4
	1881	139,976	74,227	37,424	36,803	28,325	20.2
	1882	162,992	84,170	45,418	38,752	33,404	20.5
	1883	183,326	92,762	51,866	40,896	38,608	21.1
	1884	147,660	76,577	42,839	33,738	28,244	19.1
	1885	126,260	67,345	36,733	30,612	22,182	17.6
Scotch	1877	8,653	4,547	2,563	1,984	1,543	17.8
	1878	11,087	5,756	3,180	2,576	2,151	19.4
	1879	18,703	9,865	4,724	5,141	4,114	22.0
	1880	22,056	11,047	6,051	4,996	4,958	22.5
	1881	26,826	13,814	7,038	6,776	5,974	22.3
	1882	32,242	16,316	8,614	7,702	7,312	22.7
	1883	31,139	14,596	8,822	5,774	7,721	24.8
	1884	21,953	10,561	6,341	4,220	5,051	23.0
	1885	21,367	10,707	6,148	4,599	4,512	21.1
Irish	1877	22,831	10,313	9,826	487	2,692	11.8
	1878	29,492	13,224	12,700	524	3,568	12.1
	1879	41,296	18,929	17,046	1,883	5,321	12.9
	1880	93,641	42,316	39,368	2,948	11,957	12.8
	1881	76,200	34,627	31,698	2,929	9,875	13.0
	1882	84,132	38,757	34,126	4,631	11,249	13.4
	1883	105,743	43,636	43,020	616	19,087	18.1
	1884	72,566	30,640	30,819	*179	11,107	15.3
	1885	60,017	26,169	26,631	*462	7,217	12.0
Total of British origin	1877	95,195	49,090	31,157	17,933	14,948	15.7
	1878	112,902	58,852	36,601	22,251	17,449	15.5
	1879	164,274	87,801	48,432	39,369	28,041	17.1
	1880	227,542	112,513	76,437	36,076	38,592	17.0
	1881	243,002	122,668	76,160	46,508	44,174	18.2
	1882	279,366	139,243	88,158	51,085	51,965	18.6
	1883	320,118	150,994	103,708	47,286	65,416	20.4
	1884	242,179	117,778	79,999	37,779	44,402	18.3
	1885	207,644	104,221	69,512	34,709	33,911	16.3
Foreigners	1877	21,289	11,649	5,895	5,754	3,745	17.6
	1878	31,697	17,948	8,157	9,791	5,592	17.6
	1879	49,480	29,320	11,378	17,942	8,782	17.7
	1880	100,369	56,668	23,732	32,936	19,969	19.9
	1881	144,381	78,240	33,637	44,603	32,504	22.5
	1882	130,029	72,384	30,882	41,552	26,813	20.6
	1883	73,260	38,805	19,167	19,638	15,288	20.9
	1884	57,773	31,730	14,969	16,761	11,034	19.1
	1885	53,783	28,725	15,067	13,658	9,991	18.6

* Excess of females over males.

XVII.—*Statement showing the total number of British and foreign immigrants, from various countries, landed in the United Kingdom in each year since* 1870, *the first year in which the number was recorded.*

Year or period.	From United States.	From British North America.	From Australasia.	From all other places.	Total.
1870	46,505		2,652		49,157
1871	47,726	3,997	1,994	110	53,827
1872	(*)	(*)	(*)	(*)	70,181
1873	68,536	5,862	2,574	9,444	86,416
1874	100,527	7,791	1,892	7,919	118,129
1875	80,045	6,577	2,108	5,498	94,228
Total 1871–'75	(*)	(*)	(*)	(*)	422,781
1876	72,592	7,284	2,761	10,920	93,557
1877	60,825	5,992	4,702	10,329	81,848
1878	54,989	6,401	4,403	12,158	77,951
1879	34,043	3,640	5,294	10,996	53,973
1880	45,488	5,084	6,290	11,454	68,316
Total 1876–'80	267,937	28,401	23,450	55,857	375,645
1881	51,197	6,199	6,308	13,401	77,105
1882	53,415	6,714	7,318	15,357	82,804
1883	70,560	7,280	7,155	15,508	100,503
1884	91,016	9,167	8,694	14,589	123,466
1885	81,450	10,079	8,272	13,748	113,549
Total 1881–'85	347,638	39,439	37,747	72,603	497,427

* Cannot be given.

XVIII.—*Statement showing the number of British and Irish immigrants, from various countries, landed in the United Kingdom in each year since* 1876, *the first year in which the nationality of the immigrants was recorded.*

Year or period.	From United States.	From British North America.	From Australasia.	From all other places.	Total.
1876	54,697	6,629	2,579	7,499	71,404
1877	44,878	5,687	4,637	8,688	63,890
1878	34,040	6,204	4,207	10,493	54,944
1879	20,048	3,497	4,967	9,424	37,936
1880	26,518	4,688	5,910	9,891	47,007
Total 1876–'80	180,181	26,705	22,300	45,995	275,181
1881	29,781	5,761	5,877	11,288	52,707
1882	28,468	6,097	6,871	13,275	54,711
1883	46,703	7,021	6,844	13,236	73,804
1884	61,466	8,861	8,312	12,717	91,356
1885	57,604	9,321	7,946	10,597	85,468
Total 1881–'85	224,022	37,061	35,850	61,113	358,046

XIX.—*Statement showing, for each year since* 1870, *the countries from whence the immigrants came to the United Kingdom, distinguishing the nationality of the immigrants as far as possible.*

FROM UNITED STATES.

Nationalities.	Annual average, 1870–'74 (five years).	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
British and Irish	(*)	(*)	54, 697	44, 878	34, 040	20, 048	26, 518	29, 781	28, 468	46, 703	61, 466	57, 604
Foreigners.....	(*)	(*)	17, 363	15, 91_	20, 949	13, 955	18, 970	21, 416	19, 493	23, 857	29, 550	23, 846
Not distinguished	(*)	(*)	532	32[5]	.....	.....	.....	.....	5, 454	.....	.....	.....
Total	(*)	80, 045	72, 592	60, 825	54, 989	34, 043	45, 488	51, 197	53, 415	70, 560	91, 016	81, 450

FROM BRITISH NORTH AMERICA.

British and Irish.....	(*)	(*)	6, 629	5, 687	6, 240	3, 497	4, 688	5, 761	6, 097	7, 021	8, 861	9, 321
Foreigners.....	(*)	(*)	655	305	197	143	396	438	560	259	306	758
Not distinguished	(*)	(*)	.....	.....	.....	.....	.....	.....	57	.....	.....	.....
Total	(*)	6, 577	7, 284	5, 992	6, 401	3, 640	5, 048	6, 199	6, 714	7, 280	9, 167	10, 079

FROM AUSTRALASIA.

British and Irish.....	(*)	(*)	2, 579	4, 637	4, 207	4, 967	5, 910	5, 877	6, 871	6, 844	8, 312	7, 946
Foreigners.....	(*)	(*)	.....	65	196	327	380	431	447	311	382	326
Not distinguished	(*)	(*)	182	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	(*)	2, 108	2, 761	4, 701	4, 403	5, 294	6, 290	6, 308	7, 318	7, 155	8, 694	8, 272

FROM ALL OTHER PLACES.

British and Irish.....	(*)	(*)	7, 499	8, 688	10, 493	9, 424	9, 891	11, 288	13, 275	13, 236	12, 717	10, 597
Foreigners	(*)	(*)	2, 225	1, 470	1, 665	1, 572	1, 563	2, 113	2, 082	2, 272	1, 769	2, 076
Not distinguished	(*)	(*)	1, 196	171	.....	.....	.....	.....	.....	.....	103	1, 075
Total	(*)	5, 498	10, 920	10, 329	12, 158	10, 996	11, 454	13, 401	15, 357	15, 508	14, 589	13, 748

FROM ALL PLACES.

British and Irish.....	(*)	(*)	71, 404	63, 890	54, 944	37, 936	47, 007	52, 707	54, 711	73, 804	91, 356	85, 468
Foreigners.....	(*)	(*)	20, 243	17, 575	23, 007	16, 037	21, 303	24, 398	22, 582	26, 699	32, 007	27, 006
Not distinguished	(*)	(*)	1, 910	203	.....	.....	.....	.....	5, 511	.....	103	1, 075
Grand total.....	75, 542	94, 228	93, 557	81, 848	77, 951	53, 973	68, 316	77, 105	82, 804	100, 503	123, 444	113, 549

* Cannot be given.

XX.—*Statement showing, for British and foreign immigrants, in each of the years 1877 to 1885, the number and sex of adult immigrants, the excess of males over females, and the number of children compared with total number of immigrants.*

Nationalities.	Years.	Total number of immigrants.	Adults.			Children and infants.	
			Males.	Females.	Excess of males over females.	Total number.	Proportion of children to total immigrants.
							Per cent.
British and Irish	1877	63,890	35,405	18,609	16,796	9,876	15.5
	1878	54,944	31,343	15,688	15,655	7,913	14.4
	1879	37,936	21,035	11,342	9,693	5,559	14.7
	1880	47,007	26,007	14,713	11,294	6,287	13.4
	1881	52,707	28,780	16,669	12,111	7,258	13.8
	1882	54,711	30,277	16,317	13,960	8,117	14.8
	1883	73,804	45,928	19,178	26,750	8,698	11.8
	1884	91,356	55,959	24,003	31,956	11,394	12.5
	1885	85,468	49,969	24,365	25,604	11,134	13.0
Foreigners	1877	17,755	11,186	4,679	6,507	1,890	10.6
	1878	23,007	14,373	6,644	7,729	1,990	8.6
	1879	16,037	9,076	5,331	3,745	1,630	10.2
	1880	21,309	11,475	7,487	3,988	2,347	11.0
	1881	24,398	13,037	8,273	4,764	3,088	12.7
	1882	22,582	11,992	7,395	4,597	3,195	14.1
	1883	26,699	18,049	6,511	11,538	2,139	8.0
	1884	32,007	21,228	8,008	13,220	2,771	8.7
	1885	27,006	17,483	7,134	10,349	2,389	8.8

XXI.—*Balance of emigration, deducting total recorded immigration from total recorded emigration.*

Years.	Emigration.	Immigration.	Net emigration.	Years.	Emigration.	Immigration.	Net emigration.
1870	256,940	49,157	207,783	1878	147,663	77,951	69,712
1871	252,435	53,827	198,608	1879	217,163	53,973	163,190
1872	295,213	70,181	225,032	1880	332,294	68,316	263,978
1873	310,612	86,416	224,196	1881	392,514	77,105	315,409
1874	241,014	118,129	122,885	1882	413,288	82,804	330,484
1875	173,809	94,228	79,581	1883	397,157	100,503	296,654
1876	138,222	93,557	44,665	1884	303,901	123,466	180,435
1877	119,971	81,848	38,123	1885	264,385	113,549	150,836

XXII.—*Balance of emigration of persons of British and Irish origin only, deducting recorded immigration from recorded emigration of such persons.*

Years.	Emigration.	Immigration.	Net emigration.		
			Numbers.	Proportion per cent. of total population of United Kingdom.	
1876	109,469	71,404	38,065	0.11	
1877	95,195	63,890	31,305	0.09	
1878	112,902	54,944	57,958	0.17	
1879	164,274	37,936	126,338	0.37	
1880	[illegible]	[illegible]	180,535	0.52	

XXIII.—*Destinations of excess of emigrants over immigrants, among persons of British and Irish origin only, in the undermentioned years.*

Years.	Country of emigration and immigration.				
	United States.	British North America.	Australasia.	All other places.	Total.
1876	*143	2,706	29,617	5,885	38,065
1877	603	2,033	25,501	3,168	31,305
1878	20,654	4,448	32,272	584	57,958
1879	71,758	14,455	35,992	4,133	126,338
1880	140,052	16.214	18,274	5,995	180,535
1881	146,323	18,151	16,805	9,616	190,295
1882	153,435	34,344	30,418	6,458	224,655
1883	144,870	37,164	64,420	*140	246,314
1884	93,814	22,273	35,943	*1,207	150,823
1885	80,083	10,517	31,449	127	122,176

*Excess of immigrants.

I am indebted to Mr. Giffen for copies of each of his returns for the ten years from 1876 to 1885. Very able reports accompany these returns, the chief points of which may be thus grouped, epitomized, and commented upon:

THE LAW OF EMIGRATION.

North America its destination when trade is good.

In 1876, 143 more British and Irish returned to the United Kingdom from the United States than emigrated thither.

The emigration to Australasia, however—

Says Mr. Giffen in his report for that year—

has been of late comparatively steady, while that to the United States and North America fluctuates from year to year and period to period. The phenomenon may be not unconnected with the encouragement to immigration given by some of the Australian colonies, which operates in all years alike, whereas in years when natural causes promote a stream of emigration from European countries, the flow is to North America as the most easily accessible country.

In the report for 1879 the subject is continued:

The actual decline of immigration [says Mr. Giffen], at a time when emigration increases, appears important. It would seem to be a natural inference from this circumstance that there is always a certain amount of "tentative" emigration, and that of those who go away a larger number stay in the countries to which they depart in good times than in times when trade is depressed. Thus the diminution of immigration in a year like 1879 is a sign of the operation of causes which are likely to promote emigration for some time afterwards. By and by, as emigration increases, immigration will increase too, till at last, when the tide is again turning, immigration will be large in the face of declining emigration, and there will be a small excess of emigrants; but for the present, judging by past statistics, we seem to be at a comparatively early stage of a new tide of emigration. It will be seen [see Table XXI, page 407 of this report] that between 1870 and 1873 emigration and immigration both increased, but there was very little increase in the excess of emigrants; that in 1874 there was a large decrease of emigration coupled with a large increase of immigration, so that the excess of emigration showed a large diminution, the exact contrary of what is now occurring; and that from 1874 to 1877 there was a steady decline of both emigration and immigration, but more in the former than the latter, so that the excess of emigrants declined. It seems reasonable to infer that the present movement is likely to follow the same course, and will be followed by an increase of both emigration and immigration, accompanying a consid[illegible]
a decrease of bot[illegible]

How accurately, however, even at that early day, Mr. Giffen discerned the rule, since more completely developed, will be seen by reference again to the table indicated above between brackets, viz, Table XXI, of this report.

It has already been stated incidentally [continues Mr. Giffen] that the principal part of the increase of emigration, as was the case last year, is to the United States and British North America, in which, as I had often occasion to point out in former reports, the chief falling off in previous years occurred. The point seems deserving of fuller statement. The inference from the former falling off was that the natural stream of emigration was to North America, and the emigration to Australia was only steadier because it was not so completely self-supporting; and this inference is apparently supported by the direction of the stream of emigration when trade becomes good. Almost all the increase goes to North America and very little to Australia. Thus, taking all emigrants, including foreigners, we find that out of a total increase of 70,000 in 1879 compared with 1878, no less than 53,000 is an increase of emigration to the United States and 9,000 to British North America, leaving only 8,000 as the increase to all other places, including Australia. The increase to America, moreover, is about 65 per cent., whereas to Australia it is very little over 13 per cent. Dealing with the emigration of persons of British and Irish origin only, we find that while the total increase as above stated is 51,372 persons, the increase to the United States only is 37,112 persons and to British North America 7,300 persons, leaving only 7,000 as the increase to all other places, including Australia. Here, again, the increase to North America is 69 per cent., and to Australia only about 12 per cent.

In his report for 1884 Mr. Giffen notes the great decline in emigration for that year, which he had foreshadowed in his report for 1883 as likely to occur, and proceeds:

The fact being thus evident that there is a general decline in emigration, which has practically been going on for two years and seems likely to continue during the present year, it may be interesting for a moment to consider how far the facts brought out in these tables correspond to what has been suggested from time to time as the reason for the rise and fall in emigration itself. What I have pointed out in former reports is that to all appearance emigration, as a rule, does not take place in times of the greatest dullness of trade, but rather in times of prosperity immediately succeeding a period of dullness, and that it begins to fall off again when depression returns. The reason may, perhaps, be that as the chief emigration takes place to the United States, and as the largest fluctuations are in the movements to and from the United States, then it is the state of trade there which determines the strength of the current of emigration from Europe at particular times. That state of trade, whether prosperous or the reverse, is likely enough to correspond with the state of trade in Europe itself. This being so, it would follow that emigration would take place from Europe when times are good, and not when times are dull. The reason, however, would be not that prosperity causes the emigration or dullness the decline of the emigration, but that it is the prosperity or dullness of trade in the United States, and in other countries to which emigrants proceed, which is the real operative cause. At any rate, the facts of the present time quite bear out this view. Trade has been depressed in the United States during the last two years, and is more depressed now than it was at the beginning of the period, and it is during these two years that the emigration from Europe has been declining, and that the immigration into Europe has been increasing; that immigration, it may be observed, being greatest from the United States. It is also plain that emigrants, consisting principally of laborers, are hardly likely to proceed to new countries in the years when there is no demand for them, and when, on the contrary, there is a great abundance of labor in these new countries. To some extent, also, I should say the figures as to emigration are affected by the occurrence of years of prosperity in this way, that in the earlier years of prosperity a considerable lending of capital from old to new countries goes on, and this lending of capital promotes emigration from the old countries to the new, helping to give greater employment for labor in the new countries than there would otherwise be. In this way an appearance of probability is given to the assumption that prosperity is the cause of emigration. There is no doubt, however, that prosperity in the way described is only a contributory cause. The main cause is the great demand for labor in new

account is taken of the countries from which the immigrants came. Such an account is presented in the following table:

XXIV.—*Number of immigrants of British and Irish origin that landed in the United Kingdom from foreign countries in each of the years* 1877 *to* 1884.

Countries.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
United States	44,878	34,040	20,048	26,518	29,781	28,468	46,703	61,466
British North America	5,687	6,204	3,497	4,688	5,761	6,097	7,021	8,861
Australasia	4,637	4,207	4,967	5,910	5,877	6,871	6,844	8,312
Other places	8,688	10,493	9,424	9,891	11,288	13,275	13,236	12,717
Total	63,890	54,944	37,936	47,007	52,707	54,711	73,804	91,356

From this table it will be seen—and it may usefully be compared with the tables of emigration—that the chief fluctuating element as regards immigration is in the numbers coming from the United States.

In 1877 these numbers were 44,000, falling to 20,000 in 1879; since that date there has been a gradual increase until last year, the year of largest immigration of all, when the total was 61,000, or two-thirds of the whole immigration. No other destination shows changes at all corresponding, the difference in the immigration from all other places between 1879, the least year, and 1884, the highest year, being little more than 12,000. If it be true, then, that a large increase of immigration into this country means a decline in the emigration itself, and that the emigration in turn is determined by the want of employment in the country from which the immigrants return, then it must be evident that it is the state of affairs in the United States which is now diminishing the volume of emigration. Not only are the emigrants deterred from going to the United States by the state of the labor market there, but many people who have gone to that country are returning because they can find no employment at the present time.

The facts as to the immigration of persons of foreign origin are entirely in harmony with those in the above table. * * *

Reference has frequently been made in these reports to the peculiar character of the emigration to Australasia, which varies not quite in accordance with the emigration to the United States, and appears to be less exclusively determined by natural causes.

The emigration to Australasia last year was much smaller than it had been in 1883, but still a large figure; and but for the special emigration to Australasia neither would there have been the large increase of British emigration, which took place in 1883, from the United Kingdom, nor would the figure of emigration last year, small as it is by comparison, have been so large in reality.

The following table brings out this fact very clearly:

XXV.—*Destinations of excess of emigrants over immigrants among persons of British and Irish origin only in the undermentioned years.*

Country of emigration and immigration.	Excess of emigrants in—								
	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
United States	—*143	603	20,654	71,758	140,052	146,323	153,435	144,870	93,814
British North America	2,706	2,033	4,448	14,455	16,214	18,151	34,344	37,164	22,273
Australasia	29,617	25,501	32,272	35,992	18,274	16,805	30,418	64,420	35,943
All other parts	5,885	3,168	584	4,133	5,995	9,016	6,458	—*140	—*1,207
Total	38,065	31,305	57,958	126,338	180,535	190,295	224,655	246,314	150,823

* Excess of immigrants.

Commenting in his report for 1879 on so much of the above table as was then prepared, Mr. Giffen called attention to the
crease which had taken pl
from

and but 10 per cent. from 1878 to 1879. "In other words," says Mr. Giffen, "the natural stream of emigration to North America, which was almost wholly suspended in 1876 and 1877, and which began to flow a little in 1878, had once more swollen to dimensions greatly in excess of the comparatively steady emigration to Australia."

REGULARITY IN THE OPERATION OF THE LAW.

The regularity in the rise and fall of emigration and immigration which had begun to be observed in the report for 1879, as quoted above, continued so uninterruptedly that, in remarking upon the decline in immigration in 1855, Mr. Giffen, in his report for last year, again discusses the subject, as follows:

> The peculiarity [here] is that whereas in 1884 there was an increase of immigration, which reached its maximum in that year, there is now a decline. This decline was fully anticipated in last year's report, there being a certain regularity in the rise and fall of emigration and immigration which suggested the anticipation. According to former experience, it was stated, all the figures for 1885 ought to be smaller than they were in 1884. It is too soon to affirm a general and unfailing law in the matter, but the regularity of the movement, which has now been additionally confirmed by the experience of 1885, is in every way remarkable.
>
> The rule, as stated in last year's report, is to the effect that an increase of immigration accompanies generally an increase of emigration, and reaches its maximum in those years when the emigration begins to fall off from the maximum it has itself reached, and then in the succeeding years emigration and immigration both decline, the minimum, however, in the case of emigration preceding the minimum in the case of immigration, which, as a rule, occurs in the first year after the emigration, having declined, begins again to increase. Emigration had declined in 1884, and as that was the year of maximum immigration, the rule required that emigration and immigration should both fall off in 1885. This is what has happened. It now remains to be seen whether the increase of emigration will again precede the increase of immigration. According to former experience, we should first look for a decline or a stationary condition, as regards both emigration and immigration, for a year or two, with a low excess of emigrants over immigrants.

From the statistics of emigration for the first nine months of 1886, given further on in this report, it appears that the stationary condition here anticipated has not taken place, but there can be no question about the correctness of the prediction, in this same report of 1885, that "if there is a revival of emigration soon, this revival, according to all past experience, will be a sure indication of returning prosperity in the United States and other new countries."

THE IRISH.

The subject of Irish emigration and its peculiarities receives much attention in Mr. Giffen's reports. The points of chief interest dwelt upon may be thus stated:

> The position of the English and Irish contingents in the emigration of persons of British origin is exactly reversed from what it was. Ireland in 1853–'55 contributed 61 per cent. of the emigrants, England contributing only 30 per cent.; but now England contributes 61 per cent. as compared with the Irish proportion of 29. In 1876–'77 the proportions had risen for England to 67 and had fallen for Ireland to only 24, and it was then conjectured that the reverse of positions alluded to was due to the larger proportion which those who were not really emi-

however, that the Irish figures, in proportion to the population of Ireland itself, remain very large. Ireland has less than a seventh of the population of the United Kingdom, but the Irish emigration is nearly a third of the total, and the lowest proportion it has reached was about a fourth in the years 1876–'79.

In his report for 1884 Mr. Giffen remarked upon a certain degree of change in the extent of the preference of the Irish for America, as follows:

It would appear that the change in the character of the emigration from the United Kingdom is accompanied, to some extent, by a change in the destination of the emigrants. In the years from 1861 to 1870 the annual average emigration of persons of British origin was about 157,000, of which 81,000 were Irish, and of these Irish emigrants the number proceeding to the United States was 69,000, while the number of English and Scotch proceeding to the same destination was 44,000. In 1883, however, the latest maximum year, the total emigration was 320,000, and of this only 105,000, or less than one-third, were Irish, so that although 83,000 of this number of 105,000 proceeded to the United States, the proportion proceeding to that destination was altogether not so large as it had been in the years when the Irish element preponderated. The proportion of English emigrants now proceeding to the United States appears to be not four-fifths, as is the case with the Irish element, but only about one-half, and it is the same with the Scotch emigration. In 1884 the proportion of English and Scotch emigrants proceeding to the United States was somewhat larger, but still nothing like the proportion in which the Irish emigration has that country for its destination.

In his report for 1882, however, Mr. Giffen devoted more than usual attention to the subject of Irish emigration, and what he had to say then will be found of great interest:

While the number of Irish persons emigrating, which showed a decline of about 17,000 in 1881 from the large total of 93,000 in 1880, increased last year to 84,000 [said Mr. Giffen], yet the proportion of Irish to the total emigration from the United Kingdom is rather less than it was in 1881, being nearly 30 as compared with 31 per cent.; it appears, in fact, that the increased emigration of persons of English origin amounts to 23,000, the total being 163,000, and the increased emigration of persons of Scotch origin is about 5,400, the total being 32,000, so that last year there were about 195,000 English and Scotch persons emigrating as compared with 84,000 Irish. The circumstances promoting emigration from the United Kingdom must thus be considered to have been very general, and not very specially connected with the condition of Ireland. The sudden increase of Irish emigration in 1880 remains an exceptional phenomenon, but the total which has been reached in 1882 may be considered as in correspondence with the general figures of the emigration from the United Kingdom.

While the Irish emigration has thus come to be due to much the same causes as that of the rest of the United Kingdon, though it is somewhat larger in proportion to the population, it would appear from a new comparative table which has been prepared, that there are interesting differences between it and the English and Scotch emigration, in regard, first, to the proportion of the adult single female emigration to the total number of single adults emigrating; and, second, to the proportion of the number of children to the total emigrants. Both in the English and Scotch emigration the excess of males over females among the single adults emigrating is very large. Among the English emigrants in 1882 there were 63,992 adult single males, as compared with 22,519 adult single females, the excess being no less than 41,473, or nearly twice the number of adult single females emigrating. In the recent years of high emigration also, it will be seen, the proportions were much the same, the excess of adult single males over adult single females emigrating being about twice the number of the females. In 1879 the excess was nearly three times the number of females. The figures as to the Scoth emigration are also much the same, The adult single male emigrants in 1882 of Scotch origin were 13,451, the adult single female emigrants 4,857, and the excess of males over females 8,594. When we come, however, to the Irish emigration, we find that the adult single male emigrants in 1882 were 34,937, and the adult single female emigrants were 28,605, the excess of males over females being thus 6,332 only, or less than a fourth of the number of females; similarly, in 1881 and 1880, the number of adult single female emigrants was 26,644 and 33,269 respectively, the excess of males over females being in each case about 4,600 only. It is plain [illegible] therefore, that while of the [illegible] emigrant[illegible]

emigrants of Irish origin abroad, while the effect on the Irish population at home must undoubtedly be to prevent so large a proportionate excess of females over males as there is in the rest of the United Kingdom. As regards children, again, the facts are that while the proportion of children to total emigrants, in the case of the English emigration, is rather more than 20 per cent., and in the case of Scotch emigration is very nearly 23 per cent., it is about 13 per cent. only in the case of the Irish emigration of Irish than of English and Scotch emigrants, therefore, it will be found that a larger proportion of equal numbers of emigrants are adults either of marriageable age or approaching marriageable age. The result of these two differences, viz, the greater proportion of adult single females emigrating from Ireland, and the smaller proportion of children in the total emigration, cannot but be to make the Irish emigration proportionately far more effective in retarding the growth of population at home than is the English and Scotch emigration. The Irish emigration is much more largely than the English and Scotch emigration the emigration of people at the marriageable age or approaching the marriageable age.

The above facts appear to throw light on the population statistics of Ireland. According to the Report on the Census of Ireland for 1881, page 15 of Part II, it appears that there has been no change since 1871 in the proportion of the population between twenty and fifty to the total population, which may be partly accounted for by the fact that between 1870 and 1880 the emigration was comparatively small, and it was only at the close of the decade that it began to increase. But it is found on comparing the statistics of Irish population with those of England that the proportion of adults, at almost all ages between twenty and fifty in Ireland to the total population, is considerably less than in England. For the whole period of life between twenty and fifty, the proportion in Ireland to the total population is about 36 per cent., while in England it is nearly 40 per cent. This may partly account for the fact of a lower birth rate in Ireland than in England or Scotland, as well as for a smaller excess of births over deaths, the proportion of people in the prime of life being smaller in Ireland than it is either in England or Scotland. The excess of births over deaths has also of late years been very small in Ireland, and much less than it was about 1871 and 1872. In those years the excess was about 60,000, the figures in 1871 being 62,945, but since 1878 the excess has ranged between 25,000 and 35,000, viz:

1878	34,488
1879	30,239
1880	25,180
1881	35,755
1882	33,978

These facts appear to be all in accordance with those which appear on the face of the emigration returns themselves, and to which I have now called attention. The difference in the character of the emigration from Ireland as compared with English and Scotch emigration has a distinct effect upon the birth and death rates and the growth of population in that country.

The question is one which belongs more properly to the statistics of emigration from Ireland, as stated in the annual return of the Irish Government, including the emigration to other parts of the United Kingdom as well as to foreign countries; but assuming that the above figures, which are those of the Irish emigration from the United Kingdom, correspond very nearly to the emigration from Ireland, considered geographically, it is to be observed that during the last three years the amount of the emigration must have been such as to cause a real diminution in the population of Ireland. It is much larger than the excess of births over deaths in those years, as the following comparison shows:

XXVI.—*Comparison of Irish emigration from the United Kingdom, with the excess of births over deaths in Ireland.*

Year.	Excess of births over deaths.	Number of emigrants.	Diminution of population.
	25,180	93,641	68,461
1880	35,755	76,200	40,445
	33,978	84,132	50,154

CONCERNING THE OCCUPATIONS OF EMIGRANTS.

In Mr. Giffen's report for 1876 occurs the following observation upon the classification of the occupations of emigrants, as given in the table under that head for that year, which, I take it, equally applies to the tables of "occupations" in succeeding reports, including Table V, given on page 169 of this report:

> These figures as to occupations are necessarily somewhat loose, owing to the difficulty of getting the data properly registered in the first instance, and the numbers from whom no proper record of their occupation can be obtained. There seems no doubt, however, of the broad facts that the majority of adult male emigrants are laborers, and of single adult female emigrants domestic servants, though it would be difficult to insist on the minute correctness of the other classifications, or to draw any inferences from them.

BRITISH EMIGRANTS VIA THE CONTINENT.

Mr. Giffen calls attention, in his report for 1882, to the fact that his returns do not include a certain number of emigrants from the United Kingdom who take their passage to continental ports, and thence proceed, by shipping from those ports, to the United States. He had ascertained that during 1882 about 5,000 persons from the United Kingdom had gone to the United States by this route. The movement, however, has declined and shows no tendency to increase, being 2,969 in 1883, 1,806 in 1884, and 1,964 in 1885.

PROPORTION OF ADULTS INDICATING THE CHARACTER OF EMIGRATION.

In his last report for 1876 Mr. Giffen called attention to the fact that the proportion of adults, in the emigration to the United States for that year, was larger than the proportion of adults in the emigration to Australasia. This was regarded as evidence that the emigration to the latter country was more for permanent settlement than that to the United States. This was undoubtedly true at that period of abnormally low general emigration; but I find that in 1882, the year of maximum emigration, the difference had entirely disappeared, which seems to confirm, in a striking way, Mr. Giffen's theory as to the character of emigration to the United States in periods of small general emigration and large general emigration, respectively.

THE PASSENGER MOVEMENT.

The report for 1885 contains the following:

Reference has already been made to the fact that, one year with another, the passenger movement generally between the United Kingdom and places out of Europe, apart from what is properly called emigration and immigration, is on the increase. This is shown by the following small table, continued from former reports, showing the numbers of cabin and steerage passengers, respectively:

XXVII—*Numbers of cabin and steerage passengers leaving the United Kingdom for places out of Europe in each of the years from* 1876 *to* 1885, *inclusive.*

Years.	Cabin passengers.	Steerage passengers.	Total.	Years.	Cabin passengers.	Steerage passengers.	Total.
1876	41,900	96,322	138,[illegible]				
1877	[illegible]						
1878							

The figures show, as Mr. Giffen says, that the passenger movement is on the increase—advancing from 41,900 in 1876 to 51,428 in 1885. The proportion which the number of cabin passengers bears to the whole movement for each year, however, is in the other direction—the per centage declining from 30 in 1876 to 20 in 1885, after having touched 14 in 1881–'83.

STATISTICS FOR THE FIRST NINE MONTHS OF 1886.

The emigration returns to the Board of Trade for the nine months ended September 30, which Mr. Giffen has just sent me, are summarized in the return for September, which is as follows:

XXVIII.—*Return of the numbers, nationalities, and destinations of the passengers that left the United Kingdom for places out of Europe during the month ended September 30, 1886, and the nine months ended September 30, 1886, compared with the corresponding periods of the previous years.*

MONTH ENDED SEPTEMBER 30.

Nationalities.	United States.		British North America.		Australasia.		All other Places.		Total.	
	1886.	1885.	1886.	1885.	1886.	1885.	1886.	1885.	1886.	1885.
English	11,490	9,610	2,374	1,519	3,724	3,352	1,433	1,009	19,021	15,490
Scotch	2,309	1,245	312	159	415	359	198	123	3,234	1,886
Irish	5,756	4,753	318	275	680	495	64	36	6,818	5,559
Total of British origin	19,555	15,608	3,004	1,953	4,819	4,206	1,695	1,168	29,073	22,935
Foreigners	11,390	4,157	461	121	70	92	267	308	12,188	4,678
Nationality not distinguished	.....	.....	....	.....	.....	.....	395	369	395	369
Total	30,945	19,765	3,465	2,074	4,889	4,298	2,357	1,845	41,656	27,982

NINE MONTHS ENDED SEPTEMBER, 30.

English	66,957	59,592	16,717	13,295	24,525	20,454	7,184	6,229	115,383	99,570
Scotch	13,762	10,585	2,613	2,197	3,102	3,572	803	682	20,280	17,036
Irish	45,976	44,591	2,532	2,417	3,920	4,784	268	270	52,696	52,062
Total of British origin	126,695	114,768	21,862	17,909	31,547	28,810	8,255	7,181	188,359	168,668
Foreigners	70,188	39,388	4,986	2,654	674	952	1,638	1,844	77,486	44,838
Nationality not distinguished	.....	.....	.....	.....	.....	.....	2,102	1,764	2,102	1,764
Total	196,883	154,156	26,848	20,563	32,221	29,762	11,995	10,789	267,947	215,270

NOTE.—The above figures being made up at the earliest possible date after the close of each month, are subject to correction in the annual returns.

R. GIFFEN

COMMERCIAL DEPARTMENT, BOARD OF TRADE, *October* 5, 1886.

It will be observed that the total number of emigrants of British origin to all places out of Europe, which was 168,688 for the nine months ended September 30, 1885, is 188,359 for the same period this year—an increase of 19,691, or 11.67 per cent. But while the colonies receive this year 61,664 against 53,900 in 1885, an increase of 7,764, or 14.40 per cent., the United States receive 126,695 against 114,768, an increase of 11,927, or but 10.39 per cent. Separating the colonies, however, British North America has 21,862 this year against 17,909 last year, an increase of 3,953, or 22 per cent., while Australasia has 31,547 against 28,810 last year, an increase of 2,737, or but 9.5 per cent. Combining the United States and British North America, the figures are 148,557 this year against 132,677 last, an increase of 15,880, or 12 per cent. Or, following the method observed in Mr. Giffen's annual tables, the statement would show the relation which the British emigration to each country bears to the total British emigration in Table XII, page 175 of this report, as follows:

XXVIII *a*.

Date.	United States.	British North America.	Australasia.	All other places.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
1885	66	10	19	5
Nine months of 1886	67	12	17	4

Again, the increase in the total English movement over last year's is 15.88 per cent.; in the Scotch, 19.04 per cent.; and in the Irish, 1.22 per cent.; while the increase in the English movement to the United States is 12.36 per cent.; in the Scotch, 30.01 per cent.; and in the Irish, 3.10 per cent.

THE DISPERSED ABROAD.

As an appropriate supplement to the foregoing statistics, I subjoin a table, prepared by Mr. John O'Neill for the October number of The Nineteenth Century Magazine, which displays in one direction—the horizontal—the numbers of born natives of each country who are now living out of that country, and at the same time in the vertical columns the numbers of foreigners who reside in each such country. Only the born natives of the parent countries, says Mr. O'Neill, have been considered, descendants of such emigrants becoming absorbed among the natural population of their adopted countries. The compiler hopes in these statistics, admittedly imperfect but the best to be had, to lay the foundation for those more elaborate and complete statistics which may be won at some future time, when advancing civilization shall give us, along with other international arrangements, the benefit of regulations for periodical and contemporaneous censuses, accompanied by uniform records of emigration, immigration, and re-emigration.

XXIX.—*Numbers of born natives of each country now living out of that country, together with the number of resident foreigners, and the balance in favor of or against each country.*

Nationality.	Austria-Hungary.	Belgium.	Denmark, Norway, Sweden.	England (United Kingdom).	France.	Germany.	Holland.	Italy.	Russia (Finland only).
Austro-Hungarians	-------	-------	334	2,913	12,090	117,997	-------	16,092	-------
Belgians (Luxembourg)	346	-------	-------	2,582	432,265	12,235	18,816	583	-------
Danes, Swedes, Norwegians	516	-------	-------	8,151	2,223	34,946	-------	609	306,500
English	2,272	3,809	1,478	-------	37,006	11,139	1,614	7,302	5,007
Colonials	-------	-------	-------	145,863	-------	-------	-------	-------	-------
French	2,695	52,189	300	15,725	-------	17,273	-------	10,781	-------
Germans	98,702	42,608	37,912	38,228	81,986	-------	42,026	5,234	1,800
Dutch	266	41,430	131	5,357	21,232	17,598	-------	204	-------
Italians	44,724	219	33	7,189	240,733	7,115	-------	-------	-------
Russians and Poles	11,904	-------	7,776	14,666	10,489	15,097	------	1,387	-------
Spaniards and Portuguese	131	-------	-------	1,858	74,633	365	-------	998	-------
Swiss	6,714	-------	201	4,311	66,281	28,241	-------	12,104	-------
Other Europeans	12,502	5,243	328	1,503	3,601	1,049	5,320	1,963	1,000
Chinese	-------	-------	-------	-------	-------	63	-------	-------	-------
Other Asiatics	-------	-------	-------	484	510	433	-------	-------	-------
Africans	-------	-------	-------	258	-------	305	-------	310	-------
Americans (United States)	1,418	-------	236	18,496	9,816	9,046	-------	-------	-------
North Americans			637			879	-------	1,381	-------
South Americans			-------			2,662	-------	547	-------
Australians, &c	-------	-------	-------	-------	-------	288	-------	-------	-------
Not specified	486	8	1,602	26,124	8,225	-------	1,195	461	-------
Total foreigners in each country	182,676	145,506	50,968	293,708	1,001,090	276,731	68,971	59,956	314,307
Living out of their own country	336,713	496,695	794,623	4,177,739	482,663	2,601,166	148,255	1,077,216	-------
Balance in favor	154,037	351,189	743,655	3,884,031	-------	2,324,435	79,284	1,017,260	-------
Balance against	-------	-------	-------	-------	518,427	-------	-------	-------	-------

Nationality.	Spain.	Switzerland.	Other European countries.	Asia.	Africa	United States and Canada.	Mexico and Central and South America.	Australia and Polynesia.	Totals living out of their own countries.
Austro-Hungarians	271	13,194	29,867	-------	8,022	135,550	383	-------	336,713
Belgians (Luxembourg)	360	500	-------	-------	637	28,371	-------	-------	496,695
Danes, Swedes, Norwegians	466	382	-------	-------	29	440,262	539	-------	794,623
English	6,569	2,812	4,189	93,552	10,043	3,250,404	62,080	678,463	4,177,739
Colonials	-------	-------	-------	-------	-------	-------	-------	-------	145,863
French	17,657	[1]58,992	2,542	-------	15,716	106,971	181,630	192	482,663
Germans	952	89,923	39,328	-------	1,948	1,966,742	109,974	43,803	2,601,166
Dutch	82	438	-------	-------	221	58,090	3,206	-------	148,255
Italians	8,825	41,645	74,693	7,625	62,203	176,103	403,232	2,877	1,077,216
Russians and Poles	51	1,285	104	-------	533	[3]84,279	-------	-------	147,571
Spaniards and Portuguese	-------	268	-------	-------	625	27,688	337,184	9,377	453,127
Swiss	454	-------	-------	-------	412	88,621	91	-------	207,430
Other Europeans	527	154	119,173	82,191	38,579	-------	[4]1,985,117	-------	2,258,250
Chinese	334	-------	-------	[2]1,351,828	-------	108,924	-------	[7]50,593	1,511,742
Other Asiatics	8	-------	8,000	-------	1,153	-------	[5]50,032	-------	60,620
Africans	800	-------	-------	-------	-------	23,598	44,600	-------	69,871
Americans (United States)	-------	-------	-------	-------	-------	-------	931	-------	
North Americans	1,135	1,111	-------	6,961	183	794,967	[6]2,670,438	2,066	3,528,670
						4,566			

XXIX.—*Number of born natives of each country, &c.*—Continued.

Nationality.	Spain.	Switzerland.	Other European countries.	Asia.	Africa.	United States and Canada.	Mexico and Central and South America.	Australia and Polynesia.	Totals living out of their own countries.
Australians, &c	1	.....	.....	.....	.....	4,906	.....	.....	5,195
Not specified	2,017	331	4,861	6,187	79	.....	183,668	2,150	237,394
Total foreigners in each country.	41,703	211,035	282,757	1,548,344	140,383	7,300,942	6,033,105	789,521	18,740,803
Living out of their own country	453,127	207,430	.....	.....	.....	.....	.....	.....	.....
Balance in favor.	411,424	.....	.....	.....	.....	.....	.....	.....	.....
Balance against	.....	3,605	.....	.....	.....	.....	.....	.....	.....

The compiler makes the following comments on the above table, so far as it relates to America:

The born foreigners who are now in the American continents, north and south, amount to more than 13,000,000 out of our gross totals of nearly 19,000,000. United States immigration, which first sprang into great activity in the decade 1841–'50, reached its highest point, 730,000—2,000 a day—in 1882. In 1884 it had sunk temporarily, no doubt, to 461,000. At the same time it will be seen that these immigrant hosts have by no means permanently settled down, for 3,529,000 Americans now live outside their proper countries. It is to be regretted that the inconsistent modes of framing its statistics adopted by different countries preclude a complete analysis of the figures, which there was no choice but to amalgamate for the United States, Mexico, the rest of North America, and South America.

The emigration from Canada to the States is noteworthy, 1,000,000 having crossed the frontier before 1884 and 48,000 more in that year. Forty-four per cent. of the Canadian immigrants of 1881–'82–'83 passed on to the States. There are, per contra, 78,000 natives of the States in the Dominion. It is a significant fact that Mexico now holds nearly 2,000,000 of born Europeans, or 38 per cent. of her population.

As regards South America, Brazil showed an immigration, at Rio de Janeiro, in four recent years, of 93,000 Europeans, chiefly Portuguese, Italians, and Germans. But this is far surpassed by the Argentine Republic, which received in the same years 278,000 immigrants, mainly from Italy, Spain, and France. The numbers for 1884 were 103,000, whereas Brazil had only 18,000 in that year. In Uruguay the immigration is about 2,000 a year.

With the foregoing general statistics before us, it is now possible more accurately and understandingly to consider the subject of emigration in its specific relation to this consular district. For the reason, however, mentioned at the outset of this report, it is not possible to give statistics for the district of Manchester which approach accuracy nearer than may be inferred from a comparison (1) of the population of this district with that of England and with that of the United Kingdom, and (2) of the motives for emigration existing in this district with like motives in the country at large, so far as I have been able to ascertain a difference in them.

MANCHESTER'S SHARE OF EMIGRATION.

The consular district of Manchester, as will appear from the map, embraces the greater part of Lancashire, a considerable part of Ch[illegible] and small portions of Derbyshir[illegible]
forms to what I

Encyclopedia Britannica estimates at 800,000, and the remarkable group of industrial cities near by, which are represented in the Royal Exchange of Manchester and use Manchester as their market town. Chief of these are Oldham (111,000), Bolton (105,000), Blackburn (104,000), Preston (97,000), Rochdale (69,000), Stockport (60,000), Burnley (50,000,) and Bury (52,000).* The figures given are those of the census of 1881. They would be some 10 per cent. larger now. The population of the district I estimate at 3,300,000 at the present time. It contains, therefore, a little less than 12 per cent. (11.8) of the population of England, including Wales (now 28,000,000), and 9 per cent. of the population of the United Kingdom (now something less than 37,000,000).

Assuming the causes of emigration to exist in equal measure in this district and the country at large, and applying the percentages just given to such of Mr. Giffen's statistics as are convenient for the purpose, the following table and subjoined calculations result for this consular district:

XXX.—*Account in detail (on the basis of Mr. Giffen's figures for England) of the number and destination of passengers leaving the Manchester district in 1885, showing the number of adults and children of each sex and the conjugal conditions of the adults.*

Description of emigrant.	United States.	British North America.	Australia and New Zealand.	East Indies.	British West Indies.	Cape of Good Hope and Natal.	Central and South America.	All other places.	Total.
Adults:									
Married:									
Males	959	192	396	47	27	71	52	30	1,774
Females	1,322	217	481	47	24	56	31	22	2,200
Single:									
Males	3,710	772	1,309	77	42	114	97	50	6,171
Females	1,237	242	496	39	21	52	27	20	2,134
Total adults	7,228	1,423	2,682	210	114	293	207	122	12,279
Children from one to twelve years and infants:									
Males	776	160	340	18	10	27	17	7	1,355
Females	703	165	326	14	6	28	14	6	1,262
Total	8,707	1,748	3,348	242	130	348	238	135	14,896

* Salford is omitted, because included in Manchester.

Again, combining the totals of British (and Irish) emigrants as found in Mr. Giffen's tables of "occupations" for each of the nine years from 1877 (the first year in which the nationalities and occupations were both distinguished) to 1885, I get the subjoined table, which exhibits in its last column—9 per cent. of one-ninth of the totals—the average number of each class proceeding annually from the Manchester district:

XXXa.—*Number of adults of each sex of British and Irish origin who left the United Kingdom for places out of Europe in each of the nine years beginning with* 1877, *and in all of said years, and of the average pro rata share of the Manchester district for each such year.*

Occupation.	1877.	1878.	1879.	1880.	1881.	1882.
*Males.**						
Agricultural laborers, gardeners, carters, &c	4,078	6,097	4,099	3,921	2,673	5,138
Bakers, confectioners, &c	112	144	150	186	147	281
Blacksmiths and farriers	125	144	229	140	156	235
Boot and shoe makers	155	148	175	142	158	215
Braziers, tinsmiths, whitesmiths, &c	52	25	60	44	46	83
Brick and tile makers, potters, &c	10	35	78	57	52	61
Bricklayers, masons, plasterers, slaters, &c	536	829	1,185	1,195	1,117	1,969
Builders	37	46	117	83	63	119
Butchers, poulterers, &c	161	179	305	267	147	193
Cabinet-makers and upholsterers	52	34	68	41	68	112
Carpenters and joiners	1,539	1,285	2,002	1,909	1,792	1,822
Clerks and agents	1,358	1,495	1,941	1,810	1,470	1,676
Clock and watch makers, and jewelers	25	41	48	33	54	43
Coach makers and trimmers	27	35	37	14	17	47
Coopers	35	25	52	62	44	28
Domestic servants	171	152	185	200	206	236
Engine drivers, stokers, &c	190	100	145	69	92	179
Engineers	481	640	763	632	564	560
Farmers and graziers	2,477	3,296	5,382	7,212	4,174	4,866
Gentlemen, professional men, merchants, &c	8,638	10,511	10,785	11,762	11,648	13,401
Laborers, general	9,816	13,701	28,504	50,064	59,823	69,732
Locksmiths, gunsmiths, &c	15	7	14	4	10	8
Mechanics	3,862	3,532	7,515	6,639	6,320	5,726
Millers, maltsters, &c	34	42	59	45	41	77
Miners and quarrymen	1,428	1,176	3,933	2,802	3,873	3,078
Painters, paper-hangers, plumbers, and glaziers	252	127	309	269	264	543
Printers	60	66	93	110	89	100
Saddlers and harness-makers	22	26	59	24	44	55
Sawyers	36	25	27	8	32	37
Seamen	161	172	229	199	190	123
Shipwrights	16	18	37	34	147	15
Shopkeepers, shopmen, warehousemen, &c	433	643	1,298	1,245	1,312	1,075
Smiths, general	165	147	168	263	233	258
Spinners and weavers	30	82	300	514	501	350
Tailors	213	207	289	303	277	259
Tanners and curriers	20	18	26	23	15	41
Turners	18	15	58	27	23	39
Wheelwrights and millwrights	36	59	62	20	52	71
Army and navy:						
Officers	568	702	511	621	554	559
Men	312	87	79	77	75	61
Other trades and professions	1,657	1,844	3,032	3,650	3,609	2,994
Occupation not stated	9,767	10,995	13,353	15,793	20,496	22,728
*Females.**						
Domestic and farm servants, nurses, &c	6,917	8,771	10,152	18,757	18,512	21,460
Gentlewomen and governesses	381	93	87	96	143	148
Milliners, dressmakers, needlewomen, &c	205	208	348	277	235	459
Shopwomen	13	11	9	14	7	9
Other trades and professions	110	155	242	318	438	489
Occupation not stated	23,531	27,363	37,594	56,975	56,825	65,593
Total	80,247	95,453	136,233	188,950	198,828	227,401

* By the "passengers acts" all persons twelve years of age and upwards are held to be adults.

XXXa.—*Number of adults of each sex of British and Irish origin who left the United Kingdom for places out of Europe, &c.*—Continued.

Occupation.	1883.	1884.	1885.	Total nine years.	Manchester's average per annum.
*Males.**					
Agricultural laborers, gardeners, carters, &c	8,094	9,212	9,087	52,399	524
Bakers, confectioners, &c	399	281	430	2,170	22
Blacksmiths and farriers	426	279	250	1,984	20
Boot and shoe makers	401	261	279	1,934	19
Braziers, tinsmiths, whitesmiths, &c	213	105	68	696	7
Brick and tile makers, potters, &c	136	62	45	536	6
Bricklayers, masons, plasterers, slaters, &c	2,356	1,189	1,098	11,474	115
Builders	90	96	119	770	8
Butchers, poulterers, &c	365	231	198	2,046	21
Cabinet-makers and upholsterers	215	114	110	814	8
Carpenters and joiners	3,388	1,720	1,374	16,831	168
Clerks and agents	2,359	2,207	2,849	17,165	172
Clock and watch makers, and jewelers	73	111	91	519	5
Coach makers and trimmers	70	57	39	343	3
Coopers	138	69	20	523	5
Domestic servants	231	336	495	2,212	22
Engine drivers, stokers, &c	296	190	142	1,403	14
Engineers	790	705	674	57,09	57
Farmers and graziers	6,258	5,126	5,223	44,014	440
Gentlemen, professional men, merchants, &c	13,740	12,923	9,441	102,849	1,029
Laborers, general	70,834	48,114	32,807	383,395	3,834
Locksmiths, gunsmiths, &c	15	16	.....	89	1
Mechanics	5,009	4,787	4,473	47,873	479
Millers, maltsters, &c	84	71	82	535	5
Miners and quarrymen	4,519	3,688	3,325	27,822	278
Painters, paper-hangers, plumbers, and glaziers	1,351	877	602	4,494	45
Printers	201	186	139	1,044	10
Saddlers and harness-makers	99	56	44	439	4
Sawyers	86	36	34	311	3
Seamen	197	244	330	1,845	18
Shipwrights	34	46	28	375	4
Shopkeepers, shopmen, warehousemen, &c	1,347	1,308	1,265	9,926	99
Smiths, general	303	182	132	1,851	19
Spinners and weavers	386	303	231	2,707	27
Tailors	503	324	318	2,693	27
Tanners and curriers	62	31	28	264	3
Turners	77	35	33	335	3
Wheelwrights and millwrights	120	82	50	552	6
Army and navy:					
Officers	407	296	327	4,545	46
Men	71	36	47	845	8
Other trades and professions	3,486	1,948	1,415	23,635	236
Occupation not stated	21,765	19,828	26,479	161,204	1,612
*Females.**					
Domestic and farm servants, nurses, &c	29,574	19,532	19,593	153,368	1,533
Gentlewomen and governesses	100	102	145	1,295	13
Milliners, dressmakers, needlewomen, &c	777	500	537	3,546	35
Shopwomen	25	30	45	163	2
Spinners and weavers	.....	42	92	134	1
Other trades and professions	666	886	265	3,069	31
Occupation not stated	72,566	59,407	48,835	448,689	4,487
Total	254,702	197,777	173,733	1,553,324	15,533

* By the "passengers acts" all persons twelve years of age and upwards are held to be adults.

So, also, it would appear (using Mr. Giffen's Table XV) that in thirty-three years, from 1853 to 1885, the Manchester district has sent abroad 527,016 emigrants, old and young. But from this number must be deducted the number of those who have returned. This can only be estimated, as there are no records of immigration before 1870, and none of

British emigrants returned, showing a somewhat greater proportion of "tentative" emigrants among the foreigners. While, therefore, as Mr. Giffen says, immigration has been increasing of late years, the rate of increase would, from these figures, appear to be very small, and 30 per cent. would doubtless be a fair estimate for the proportion of persons of British origin who have returned to their own land during the thirty-three years. Deducting this percentage from the number of emigrants as above, the net loss to the Manchester district would be but 368,911, or 11,000 per annum; a small number when compared with a population that has increased at an average rate of 40,000 per annum during the same period.

LOCAL PECULIARITIES.

When we come, however, to consider local peculiarities in connection with the motives for emigration, there are certain facts which would seem to qualify, in an important degree, the figures as given above for this district. For example, the Census of 1881 (page 43, Vol. IV) shows that there were, in round numbers, 500,000 persons in the Manchester district engaged in the cotton industry, or 17 per cent. of the total population of the district at that time, being just half of the number, 34 per cent. (Census, Vol. IV, page 101), engaged in every kind of industry. Of the male adult emigrants who were sufficiently identified with the cotton industry to be classified as such, viz, as "spinners and weavers," the table just given above shows that from 1877 to 1885 there were but 2,707. Assuming that all of these went from this district, and that all the weavers were cotton weavers—an assumption in excess of the truth, of course—we have an average of but 300 of such persons out of a total of 9,431 of all occupations, or 3 per cent., or, including the females, an average of but 315 out of a total of 15,533, or 2 per cent. While, therefore, as Mr. Giffen is quoted in an earlier part of this report to have said, it would be difficult to draw inferences based upon the minute correctness of the classifications of occupations, the difference between the 2 or 3 per cent. thus liberally obtained and the 17 per cent. above is so great that a wide margin is left after making all allowance for such of the 1,612 male and 4,487 female emigrants whose occupations are not stated as may have been of those classified by the census as connected with the cotton industry.

Again, the Lancashire people, who constitute the bulk of the population of the district, are not a migratory people, as is evident from the fact (Census, Vol. IV, page 101) that of every 1,000 natives of the county enumerated in England and Wales 904 were still resident in the county, whereas of the 44 "registration counties" in England and Wales none other had as many as 900, and but two had over 800 of such residents.

Further, Lancashire has a larger proportion of its population engaged in industrial occupations, and a smaller proportion in agricultural, than any other of the forty-four registration counties—the percentage of the former being 34 against 24 for the whole kingdom, and of the latter 1.8 against 5.3 for the whole Kingdom. In the forty-five registration districts, including London, it has, also, next to London, the highest percentage in the "commercial class," and, except Bedfordshire, the lowest percentage (53) in the "unoccupied class." And it is the industrial and commercial classes that the peculiar economic laws of England—which by the way, had their origin here in Man[illegible]

Again, takin[illegible]

the advantages of life in this consular district would naturally offer to the inferior temptations of America and the colonies. The Census Report (Vol. IV, page 59–60) shows that Lancashire and Cheshire have contributed but 1 per cent. of their natives to London, which is a smaller percentage than that contributed by any other counties. After explaining that propinquity is the chief factor in determining this migration from the counties to London, the report proceeds to say that the small contributions of Lancashire, Cheshire, Yorkshire, Durham, Derbyshire, and Staffordshire resulted not merely from the fact that "those counties were far off, for there were counties quite as far off that made larger though still small contributions. An additional cause was that the counties mentioned had attractions of their own; they were centers of industry and retained a more than average proportion of their natives at home."

And, finally, the people of Lancashire have a greater pride in their county—without doubt resting upon more than a sentimental foundation—than the people of other sections of England, so far as my observation extends, and, other things being equal, would hesitate more before leaving it.

On the other hand, the Irish residents in Lancashire constitute 6 *per* cent., and in Cheshire 3½ per cent, of the populations of these counties respectively, while the percentage of the Irish residents for the whole of England and Wales is but a little over 2. And the Irish, as we have seen, emigrate in larger numbers in proportion to population than the British.

Such are the indications of theory, which, it will be observed, with exception of the last mentioned, all point in one direction.

Local information, so far as, by diligent inquiry, I have been able to command it, supports the theory.

For example, Miss Emily Faithful, who has charge of the Manchester branch, for the northern and midland counties, of the Colonial Emigration Society, writes in reply to my inquiries:

> I do not think the people of Lancashire emigrate in proportion [to those of the rest of the Kingdom], certainly not as far as the women are concerned.

Miss Faithfull's efforts, before coming to Manchester, had been chiefly directed towards the emigration of women, but the distinction she suggests is in harmony with the fact that while of the total number of adults emigrating from England and Wales 40 per cent. only are females, 60 per cent. of all the persons engaged in Lancashire's chief industry are females.

Mr. J. T. Jordan, who enjoys opportunities for extensive and accurate information, writes:

> As regards Lancashire, the emigration of cotton-factory operatives has been very small during the past two years, owing to their being well employed and earning good wages, the low cost of provisions and low rents for their cottages, provisions being very much lower than ten years ago, and rents fully 30 per cent. less. The iron trade having been in a depressed condition the last two or three years, there has been a comparatively large emigration of operatives in this department of trade, and many of this class travel very often backwards and forwards according to the state of trade in this department in the two countries. The same may be said of stone masons and builders. As regard paupers, you may put them down as an unappreciable quantity, [illegible] go from hence if they wished. Farm laborers are an increasing quan- [illegible] farming industry does not improve [illegible]

Philadelphia, Pa., and Cohoes, near Troy, N. Y. There has been no emigration so far to the cotton-mills in South Carolina and Georgia, although I expect in the future an exodus to some small extent in that direction. There is a sufficient quantity of labor to be found at present among the poor whites in those two States; yet it only requires a beginning to start the outflow in that direction, the operatives here being of a gregarious nature and only requiring a bell-wether to lead the way.

To measure the bearing of the foregoing statements upon the point under consideration, it will be necessary to keep in view the proportion of the population of this district engaged in the several pursuits enumerated. As nearly all of the population of the district is comprised within the Lancashire part of it, and the Lancashire part of the district is that part of Lancashire which is most densely populated and which otherwise, except, possibly, as to the commercial class, chiefly determines the peculiarities of Lancashire, the figures for the whole of Lancashire will be found to be as nearly accurate for the Manchester district as need be, the small Cheshire and Derbyshire rural contingents being thus more than offset. Taking, therefore, the figures for Lancashire, the "unoccupied" class (largely composed of women having no definite "occupation", and of children under five years of age) is smaller in Lancashire, as has already been stated, than in any other county with the single exception of the small county of Bedford, being 53 per cent. of the total population. Of the remaining 47 per cent., 5 per cent. are enumerated in the "commercial" class, 4.7 per cent in the "domestic" class, 1.8 per cent in the "agricultural" class, 1.7 per cent in the "professional" class, and 34 per cent. in the industrial class.

Of all this industrial army, between a third and a half (quite half in the Manchester consular district) are engaged in the cotton industry; while the iron and steel trade claims but one-twentieth part of it (Census, Vol. III, p. 356); and, giving the silk industry the benefit of the addition of the whole number engaged therein in its stronghold, Cheshire, its quota is little over one-fiftieth part. It will be seen, therefore, that a comparatively large emigration from the last named two classes would exert but a small influence upon the general result. To take an extreme illustration: There were connected with the silk industry in Lancashire, Cheshire, and Derbyshire in 1881, 10,000 persons less than in 1871. If the whole of this loss, or 1,000 per annum, occurred from emigration (which of course is not the fact), it would make little difference one way or another with the total emigration of 20,000 adults per annum from those counties, or with the 15,000 per annum from the Manchester district.

[It may be observed with respect to the above calculations that the census figures for the four counties which contribute to make the area of this consular district could not be combined to any useful purpose, so widely do those counties differ in many characteristics and in the extent of their respective contributions to the total population of the district. The figures for Lancashire very fairly represent the district; for the district contains over three-fourths of the population of Lancashire, and seven-eighths of the population of the district are in Lancashire. The general effect of the figures, however, would be heightened were the same statistics accessible for the district. For example, there would be found more of the industrial element here than in the Liverpool end of the county, and less of the Irish—the census showing that Liverpool contains 1,262 out of every 10,000 Irish persons enumerated in England and Wales, and Manchester [illegible]
686. I have used th[illegible]

substantially to the same effect, I select a letter from Mr. Samuel Andrew, secretary to the Oldham Master Cotton Spinners' Association. Mr. Andrew gave evidence of very great importance before the royal commission on the depression of trade, and is probably the best authority in England on the subjects of which he writes as below:

As to the condition of the people of the cotton spinning and manufacturing district of which Oldham is the center, it may be said that, generally speaking, during the last quarter of a century it has considerably improved up to the present year. The working classes have generally become better off on account of having regular work and receiving good wages. At present a dark cloud overhangs the cotton trade and this is causing some irregularity in the working of some of the cotton-mills, but the amount of actual distress from this cause is only small compared with the number of people engaged in the cotton trade. The cost of living in recent years has been very moderate compared with that of former periods in the history of the trade. Add to this fact that the savings of the working classes have generally been invested in undertakings which as a rule have returned good interest, say in loans to cotton and other companies and building and money clubs. The iron trade of the district, though not so brisk as in some former years, has for the most part found regular employment for those engaged in it. To show the industrial nature of the population which surrounds Oldham, it has been estimated that the earnings of the whole population are about 7*s*. per week for every man, woman, and child, so that it may be said that every one gets his or her own living, and perhaps something to spare. The higher class of the population which lives on independent means seems to get smaller every year, while the class which includes the working population, or what has been at one time the working population, seems to have taken the place for the most part of what was called the higher class of former days.

In recent years there has not been much emigration among the working classes of Oldham. In former years, before the period I am now speaking of, there was considerable emigration, and the few emigrants who now leave Oldham for America do so, as a rule, to join members of the family who have succeeded well in America and have sent for their relatives left here behind. The reason alleged why working people do not emigrate is that, as a rule, a workingman can do better in England than in America, taking cost of living into account. The few who do emigrate, otherwise than as above described, are chiefly of the Irish element, many of whom are verging on pauperism and are neither well housed, well fed, nor as a rule well clad, and for the most part are unskilled laborers.

THE SMALL EMIGRATION FROM THE MANCHESTER DISTRICT.

I conclude, therefore, that emigration from this consular district is not so great in proportion to population as in the rest of England, and that the figures as given in my tables, constructed on the basis of Mr. Giffen's tables for the whole country, require reduction to a greater or less extent. The difference appears to be chiefly the result of the preponderating influence in this district of the cotton industry, in which, it would seem, the laborer manages to extract a larger share of the joint earnings of capital and labor than his fellow in America.

Inquiry into the cause of the difference which it would seem exists between the ratio of emigration from the cotton, iron, and silk trades respectively—a subject too long for discussion here—may well engage the attention of students of political economy. Briefly, however, it may be pointed out that the agreement between the facts as they have been discovered to exist here and certain general facts well known to exist on our side of the Atlantic is so obvious and complete that they seem to bear the relation to each other of cause and effect. For example, the

production, and therefore of earning, which constant improvements in the machinery he uses bestow upon him. Were it not so, the increase in the pressure of population, strengthened yearly to an enormous degree, would drive him from home in numbers many times greater than at present. In the silk trade, on the other hand, American production has not yet caught up with American consumption, and emigration proceeds in greater proportion from Macclesfield to Paterson—the probability being that, except for the increasing pressure of population, the laborer would not emigrate at all, whatever the capitalist might do with himself and his idle looms.* So, in the iron trade, the correlated facts give even greater evidence of mutual sympathy, the fluctuations in that industry—overproduction in which in America is not yet a steady condition, owing to the vast and irregular demands of railway building—being in keeping with the passing back and forth of laborers in it, noted by Mr. Jordan. That is to say, ocean transit is now so cheap and easy that the laborer seeks work where he can find it briskest and has the world to choose from.

I have, in one sense, given undeserved prominence to the silk industry, considering that, in a broad view, it can hardly be said to have emerged from the condition of an exotic; for, while the cotton industry absorbs one-twelfth of the whole industrial population of England and Wales, the silk industry employs less than one-hundredth part of it. But nearly half of all those engaged in this industry in the Kingdom are in the Manchester district; and for this reason, and because of the contrast its condition offers to its huge fellow textile, I have given it a prominence not accorded to industries greater than it.

CLASSES WHICH SUPPLY EMIGRATION.

From what has been said, it is plain that in a district like this, in which the industrial element so largely predominates, and the agricultural forms such an inconsiderable portion of the population, it must be the industrial class which supplies the greater portion of whatever emigration takes place. So, also, Mr. Giffen's table of "occupations" of emigrants would indicate the same fact—to a less degree, however—for the whole Kingdom. But it will be seen that the term "industrial" should be taken in a restricted sense.

Under the head "concerning the occupations of emigrants," I have already quoted Mr. Giffen's observation that "the figures as to occupations are necessarily somewhat loose, owing to the difficulty of getting the data properly registered in the first instance, and the numbers from whom no proper record of their occupation can be obtained." "There seems no doubt, however," continues Mr. Giffen, "of the broad facts that the majority of adult male emigrants are laborers, and of single adult female emigrants domestic servants."

Following out this idea, I have sought to minimize the effect of the looseness referred to, and yet to secure a reasonably satisfactory determination of the ratio of emigration to population of each of the classes contributing to the sum total of emigration, on the broader lines suggested. A table in the census of England and Wales divides the population into male and female, and these each into six classes, designated as the "professional," "domestic," "commercial," "agricultural," "industrial," and "unoccupied." In Mr. Giffen's tables, on the contrary, the emigrants are classified under forty-nine diff[illegible]
all to be found in thei[illegible]

other of the great classes mentioned; but, inasmuch as some of these subdivisions are aggregated in Mr. Giffen's tables—for example, "gentlemen, professional men, merchants, &c.," include members of two at least of the census classes—I have chosen for the males (1) the "industrial" and (2) the "agricultural" classes, in which there is no confusion of classification as between the two systems; (3) "all other occupied classes," in which I have aggregated the "professional," "domestic," and "commercial" classes of the census on the one hand, and all such of Mr. Giffen's "occupations" as the census subdivisions indicate should be included under one or other of these three classes, on the other hand; and (4) the "unoccupied" class of the census, with whom I compare Mr. Giffen's figures for those whose occupations were not stated to the emigration officers. For the females I have made a somewhat different classification, substituting the "domestic" class (in which, of the "occupied" classes, the females predominate) for the "agricultural" (of which the females form practically no part).

A careful study of the census report on the "unoccupied" class, in connection with the figures given in Mr. Giffen's tables for those "emigrants whose occupations were not stated," will show how closely the figures for such emigrants conform to what might be expected from the census analysis of the class from whom they would appear to have been drawn. Says the Census Report (Vol. IV, page 49):

> The [unoccupied] class comprised 14,786,875 persons, or 57 per cent. of the entire population, the females in it being to the males in proportion of rather more than two to one.
>
> It included, in the first place, 8,930,851 children and young persons under fifteen years of age, most of whom were simply unoccupied in the sense that they were as yet preparing for the various businesses of later life. Secondly, it included 532,441 others who were fifteen but under twenty years of age, and of whom also a large proportion were preparing for active life. Thirdly, it included 676,393 persons who were sixty-five years of age or more, and of whom a large number had been engaged in business, but had retired. Excluding these three classes of persons there remained 4,641,190 who were twenty but not yet sixty-five years of age, that is to say, who were in the working prime of life, and yet were without special occupation. Of these, however, 4,458,908 were women, of whom by far the greater part were married and engaged in the management of domestic life, and who can only be called unoccupied when that term is used in the limited sense that it bears in the census returns. Many more of these women, though unmarried, were also engaged in domestic duties, or were assisting their fathers or other near relatives in the details of business.
>
> Of the 182,282 males in the working period of life (20-65) without specific occupation, a large number, doubtless, were busily engaged in avocations which were none the less serious or less important because not recognized in our classification. They were managing their estates and property, directing charitable institutions, prosecuting literary or scientific researches, or engaged in other of the multifarous channels by which unpaid energy finds vent. If these were deducted from the 182,282 unoccupied males, and a further deduction were also made for those who were incapacipated for work by physical defects, the remainder, constituting the really idle portion of the community, would probably prove to be but very small.

In close conformity with the above it will be seen, in the table given further on, that the male emigrants, whose occupations were not stated, formed but 0.27 per cent. of the male "unoccupied" class of the census, whereas the female emigrants whose occupations were not stated formed 0.44 per cent. of the female "unoccupied" class of the census, many

This suggests an important restriction of the term "industrial," and I have accordingly subdivided the "industrial" class into "general laborers," and the "industrial class exclusive of general laborers."

And, finally, assuming that the Scotch and the Irish censuses would not strictly follow the same method of classification as the English census, I have added to the figures in the English census the percentage (35.7) by which the population of the United Kingdom exceeds that of England and Wales. This is rendered necessary by the fact that the nationality of the emigrant is not distinguished in Mr. Giffen's tables of "occupations." Doubtless the relative proportions of the six census classes differ somewhat in Scotland and Ireland from those of the same classes in England and Wales. But the natives of the several nationalities are intermingled to a considerable extent—1 per cent. of the population of England and Wales being Scotch, and 2 per cent. Irish born, while the English and Welsh born supply 2 per cent. of the population of Scotland, Ireland, and the islands in the British seas; and the population of England and Wales so predominate (74 per cent.) in the total for the United Kingdom that the divergence from the actual facts cannot be very great.

With this exception, and the trifling exception to be noted later in the report, the comparison shown in the following table is believed to be as accurate as the census and the emigration tables from which its figures are deducted:

XXXI.—*Distribution of the population of England and Wales, according to sex, in several classes as distinguished in the census of* 1881; *the distribution of the population of the United Kingdom in the same classes reckoned upon the basis of the classification for England and Wales, and the amount and rates of British and Irish adult emigration from each class as averaged for the past nine years.*

Sex and class.	Population of England and Wales in 1881, as distributed in several classes.	Population of United Kingdom in 1881, as distributed in the same classes on the basis of their distribution in England and Wales.	Average number per annum during the past nine years of British and Irish adults emigrating.	Ratio of adult emigration to population.
MALES.				*Per ct.*
Industrial class (including general laborers)	4,795,178	6,505,980	60,010	0.92
General laborers (included in industrial class*)	559,769	759,481	42,599	5.61
Industrial class exclusive of laborers*	4,235,409	5,746,499	17,411	0.30
Agricultural class	1,318,344	1,788,667	10,715	0.60
All other occupied classes	1,670,124	2,265,983	16,159	0.71
Unoccupied class, or those whose occupation was not stated on emigrating	4,856,256	6,588,849	17,911	0.27
Total	12,639,902	17,149,509	104,795	0.61
FEMALES.				
Domestic class	1,545,302	2,096,628	17,030	0.81
Industrial class	1,578,189	2,141,248	427	0.02
All other occupied classes	280,427	380,478	485	0.13
Unoccupied class, or those whose occupation was not stated on emigrating	9,930,619	13,473,621	49,854	0.44
Total				

This table brings out very clearly the broad facts stated by Mr Giffen, viz, that the majority of adult male emigrants are laborers, and of [single] adult female emigrants domestic servants. It also shows that while the "industrial" class, including the general laborers, contributes, in proportion to its numbers, 50 per cent. more than the "agricultural" class, it contributes, excluding the general laborers, but half as many in proportion; and the general laborers not only constitute three times as many as either of the other classes of male emigrants, but they contribute of their home population the great proportion of 6 per cent. Again, if the number of children under twelve years of age who emigrate (about 20 per cent. of the number of adult emigrants) be added to the number of adults, making the total 207,000, it will be seen that the general laborers constitute 20 per cent. of the whole number of emigrants. In conformity with this fact, the census shows that had the laboring class, including agricultural laborers, increased in the ten years 1871–'81 in the same ratio as the general population, there would have been 239,000 more of them than were enumerated in 1881.

So, of the females, twice as many of the "domestic" class emigrate, in proportion, as of the "unoccupied" class, though the actual number of emigrants of the latter is three times as great as that of the former. As before suggested, however, many of the female emigrants, whose occupations were not stated, and whom I have compared with the "unoccupied" class of the census, are doubtless wives and daughters of male emigrants, and go to swell the number of domestic servants upon arriving at their destination.

For those who care for a more detailed explanation of the classifications in the foregoing table it may be added that I have grouped the subdivisions in Mr. Giffen's tables under the larger classes of the census as follows:

MALES.

Census classification.	Classification in emigration tables.
Industrial class	Bakers, confectioners, &c.; blacksmiths and farriers; boot and shoe makers; braziers, tinsmiths, &c.; brick and tile makers, potters, &c; bricklayers, masons, &c,; builders; butchers, poulterers, &c.; cabinet-makers and upholsterers; carpenters and joiners; clock and watch makers and jewelers; coach makers and trimmers; coopers; engine drivers, stokers, &c.; general laborers; locksmiths, gunsmiths, &c.; mechanics; millers, maltsters, &c.; miners and quarrymen; painters, paper-hangers, plumbers, &c.; printers; saddlers and harness-makers; shipwrights; general smiths; spinners and weavers; tailors; tanners and curriers; turners; wheelwrights and millwrights; other trades and professions.
Agricultural	Agricultural laborers, gardeners, carters, &c.; farmers and graziers.
All other occupied classes	Clerks and agents; domestic servants; engineers; gentlemen, professional men, merchants, &c.; lawyers; seamen; shop-keepers, shopmen, warehousemen, &c.; army and navy.
Unoccupied class	Those whose occupations are not stated.

FEMALES.

Domestic class	Domestic and farm servants, nurses, &c.
Industrial class	Milliners, dress-makers, needlewomen, &c.; shopwomen; spinners and weavers.
All other occupied	Gentlewomen and governesses; other trades and professions.

dustrial" class, whereas the "professions" belong to the "all other occupied classes." On the other hand, "gentlemen" are included in the "all other occupied classes," whereas some of these may belong to the "unoccupied" class; and "shopkeepers" are included in the same class, though, if they had been distinguished from "warehousemen" in the emigration tables, they would have been included, as the "general shopkeepers" of the census, in the "industrial" class.

So, of the females, "other trades and professions" are not separated in the emigration tables, and therefore the "other trades" do not go under the "industrial" head, as otherwise they would.

An examination of the relatively small figures for these mixed classifications, however, will show that the confusion in respect of them can have no appreciable effect upon the result.

CAUSES OF EMIGRATION.

Having ascertained with sufficient accuracy the classes of the population which supply the greatest number of emigrants, the solution of the question of the causes of emigration is comparatively easy. And in considering the latter it will be seen that much light in turn is thrown upon the condition of the particular portion of the several classes which supplies the emigration.

Of the four chief supposed causes of emigration—compulsory military service, onerous taxation, strikes, and surplus population—the first two in no wise affect emigration from the United Kingdom. There is practically no compulsory military service here of any kind, the statute which authorizes the selection of militiamen by ballot, in cases where the militia quota of a particular county or district is not voluntarily filled, being temporarily suspended, and the regular army being raised entirely by voluntary enlistments. So, also, in the matter of taxation, the people of this country enjoy unusual immunity. Comparative tables* for the different civilized nations, recently published, show that the ratio of national and local taxation to gross earnings is less than 9 per cent. in England, considered apart from Scotland and Ireland; 9 per cent. in Denmark; 10 per cent. in the United Kingdom, Holland, and Sweden and Norway; 11 per cent. in the United States, Russia, and Belgium; 12 per cent. in Germany and Austria; 15 per cent. in France; 18 per cent. in Portugal; 21 per cent. in Spain; and 25 per cent. in Italy. So that, if we consider England alone, taxation is here lighter in comparison with the earnings of the people than in any of the countries named; while in the United Kingdom, considered as a whole, it is next to the lightest.

Again, if we consider the incidence of taxation upon the class which supplies emigration in comparison with that upon the upper classes, it will be seen that the laws of this country very greatly favor the former. A table derived from the same source as the figures just given shows the incidence of taxation in England, Scotland, and Ireland, and in the United Kingdom, upon the rich, the middle class, and the working class, respectively, per capita, and in comparison with income. The numbers of each class, says the compiler, Mr. Mulhall, are determined according to the results of legacy returns for 1877 in the three kingdoms, though the other figures are for 1881.

*By M. G. Mulhall.

XXXII.—*Incidence of taxation in the United Kingdom on the three classes of the population.*

Classes of population.	Numbers.	Taxes.	Income.	Ratio taxes.	
				Per head.	On income.
Incidence on the rich:					
England	966,000	£14,190,000	£286,000,000	$71 54	4.96
Scotland	121,000	1,816,000	30,000,000	73 01	6.05
Ireland	72,000	1,175,000	14,000,000	79 44	8.40
Total	1,159,000	17,181,000	330,000,000	72 06	5.16
Incidence on middle classes:					
England	7,654,000	25,324,000	381,000,000	15 09	6.70
Scotland	967,000	3,930,000	49,000,000	19 78	8.02
Ireland	860,000	3,405,000	34,000,000	19 25	10.02
Total	9,481,000	32,659,000	464,000,000	16 74	7.03
Incidence on working classes:					
England	17,490,000	21,802,000	374,000,000	5 03	5.81
Scotland	2,646,000	4,244,000	46,000,000	7 80	9.23
Ireland	4,228,000	3,995,000	36,000,000	4 56	11.10
Total	24,364,000	30,041,000	456,000,000	5 97	6.63

STRIKES.

Strikes affect emigration from this country to some extent, but my information leads me to believe to a degree hardly worth taking into account. In the first place, as Mr. Giffen has clearly shown, it is not bad times (if we take strikes as evidence of bad times) in England which swells the tide of emigration; it is good times on our side of the Atlantic. And, in the next place, as strikes, in this district at least, are merely business contentions between two kinds of capitalists, the individually big and the individually little, the effect of a prolonged strike is chiefly to shove down the upper classes of unskilled laborers, whose places are thereupon occupied by the lower classes of the laboring small capitalists, and the movement proceeds downwards until a certain portion of the lowest orders of the "general laborers" is driven from the field of labor and into the ranks of the paupers. The bulk of the strikers, on the contrary, are abundantly able to endure the consequences of their action, which after all is deliberate and generally not an altogether unfriendly passage at arms. To such an extent was this true of the great strike last year of the Oldham spinners, which lasted thirteen weeks, that a number of the strikers, as I am informed, took advantage of the holiday to make pleasure trips across the Atlantic to visit their less fortunate brethren in America. The statistics of emigration, it will be observed, are altogether in conformity with this statement of the case; while the statistics of pauperism for last year show an increase of paupers throughout England and Wales as the result of the depression of trade which provoked the strikes.

Again, as the benefits of good trade are disproportionately manifested

1880, in comparison with the national income, but 67 per cent. of what it was in 1850.

PRESSURE OF THE POPULATION.

The incidental pressure upon the laboring class, occasionally caused by strikes among those above them in the industrial scale, which I have just described, illustrates that irresistible pressure of increasing population which, after all, is both the cause of modern British emigration and determines its character. The only wonder is that the emigration is so small. For, other things being equal, the pressure of rapidly increasing population upon an area to which the sea sets immovable limits, would increase, not in arithmetical, but in geometrical, progression. A familiar illustration will make this plain. If there are one hundred vacant houses in the community and ninety-nine applicants for houses, the applicants command their own terms. But if the number of applicants be increased to one hundred and one, the increase of rental demanded is not as 101 to 99, but is abnormally greater. In such case, however, the building of two more houses relieves the pressure. In the case of the newly-born Briton, not an acre can be added to the land.

The decrease in the emigration from Ireland is also in conformity with the view just stated, and the readiness with which the movement from the United Kingdom has responded to the influence mentioned, in conformity with the varying degrees of pressure of population in its several parts, is—making due allowance for such disturbing causes as the continuing effects of the Irish famine and the late war in our country—remarkably exhibited in the following table:

XXXIII.—*Ratio to population of British emigration in the three past decennial periods, and the rate of increase of population in those periods.*

United Kingdom.	Emigrants.			Ratio of emigration to population.		
	1851–'60.	1861–'70.	1871–'80.	1851–'60.	1861–'70.	1871–'80.
				Per cent.	*Per cent.*	*Per cent.*
England	640,000	650,000	971,000	3.4	3.0	4.0
Scotland	183,000	158,000	166,000	6.1	4.9	4.7
Ireland	1,231,000	867,000	543,000	20.1	15.5	10.2
Total	2,054,000	1,675,000	1,679,000	7.3	5.5	4.8

United Kingdom.	Increase of population.			Inhabitants per square mile.			
	1851–'61.	1861–'71.	1871–'81.	1851.	1861.	1871.	1881.
	Per cent.	*Per cent.*	*Per cent.*				
England	11.9	13.2	14.4	307	344	390	446
Scotland	6.0	9.7	11.1	94	100	110	122
Ireland	*11.8	*6.7	*4.4	205	181	169	161
Total	5.6	8.8	10.8	227	240	261	289

* Decrease.

population from the census; those for the number of inhabitants per square mile, for England, from the census; for Scotland and Ireland, the census giving none, from Mr. Mulhall; for the United Kingdom, the census and Mr. Mulhall giving none, they are calculations based upon Table 47 of the census, Vol. IV, page 112.

As will be seen, the ratio of emigration to population in the United Kingdom has steadily declined during the thirty years, notwithstanding the greatly increased pressure of the population, which was 227 to the square mile in 1851 and 289 in 1881. In the case of Ireland, the ratio of emigration to population fell off 50 per cent. in the thirty years. At the same time a reduction of only 25 per cent. in the apparent pressure of population took place—from 205 to the square mile, in 1851, to 161 in 1881. But this disparity is entirely in keeping with the theory of a disproportionate progression in the pressure, as already explained. When, however, the case of England is considered, whose area would seem long ago to have reached the limit of endurance, supporting a greater population to the square mile, twenty years ago, by 10 per cent. than any other of the nations of Christendom, except Belgium, supports to-day, and now containing nearly double that of Italy and more than double that of Germany and France, it is cause for astonishment that the rate at which it throws off its population has scarcely increased at all. The laws of the land for the United Kingdom, but especially for overcrowded England, must have been adjusted to the needs of the laboring man with consummate skill to produce such a result. The fact, however, is altogether in conformity with the large number of like import to which attention has been already drawn.

DECLINE IN THE ATTRACTIONS OF THE UNITED STATES TO THE LABORING MAN.

It is the unskilled laborer, as we have seen, whom this country chiefly sends to us, the better class to the United States, and an inferior class to those colonies which find need for tempting immigration with assisted passages, the unskilled laborer who, within the limit of ability to transport himself, is furthest removed from partaking of the benefits which the remarkable economic system of this country seems to confer upon industrial merit. Under the pressure of the overcrowded population it is the survival of the fittest in the struggle to stay at home, and yet not the unfittest leave. These also remain as paupers. Fortunately for the emigrant laborer, whatever be the effect upon those with whom he comes into competition, the laws of most of the lands to which he turns his face, unlike those of the province of Minas Geraes, in Brazil, which impose a heavy tax upon his tools of trade, welcome him free of duty. But so they do his superior in industrial skill who refuses to emigrate. That is to say, it is commonly supposed they do. Perhaps, after all, the spinners and weavers in America pay a duty without knowing it. Manifestly, either the profits of manufacturing in America are much less than here, which ought not to be, seeing it is the land of raw material, or something in the laws or other forces controlling the American laborer, keeps down his share of the profits to such an extent [illegible] than in England though offered free entry, re-

consigns him to work upon the cruder materials and in the cruder ways that the workingman can ever afford to avail himself of the imitation, and we have seen how even he would refuse it were it not that the fecundity of his race somewhat outruns the fertility of its industrial resource.

It will be interesting in this connection to compare the statistics of immigration into the United States from the two nations which contribute two-thirds of all our immigration, viz, the United Kingdom and Germany, with the insignificant numbers contributed by another of the chief nations of Europe, viz, France. The subjoined figures, extracted from Table No. 22 of the report of the Chief of the Bureau of Statistics for the three months ending March 31, 1886, make the comparison very striking:

XXXIV.—*Summary of aliens and immigrants of British, German, and French origin, respectively, carried in the United States by decades from* 1821 *to* 1880.

Nationality.	1821–1830.	1831–1840.	1841–1850.	1851–1860.	1861–1870.	1871–1880.
United Kingdom	75,803	283,191	1,047,763	1,338,093	1,106,970	989,163
Germany	6,761	152,454	434,626	951,667	822,007	757,698
France	8,497	45,575	77,262	76,358	37,749	73,301

Using Mr. Mulhall's tables of populations, another table may be constructed which will show the ratio of the above figures to population, as averaged for three double decades from 1821 to 1880, as follows:

XXXV.

Nationality.	Average population, 1821–1840.	Ratio of 20 years' emigration to population.	Average population, 1841–1860.	Ratio of 20 years' emigration to population.	Average population, 1861–1880.	Ratio of 20 years' emigration to population.
United Kingdom	23,625,000	1.50	27,635,000	8.63	31,690,000	6.61
Germany	28,315,000	.56	33,500,000	4.14	40,835,000	3.87
France	32,241,000	.17	35,696,000	.43	37,360,000	.30

The percentages in the above table, given under the head of "ratio of twenty years' immigration to population," represent the proportion which the total emigration for twenty years bears to the average population during those years. The ratio of annual emigration will be found by dividing the percentages by 20. The figures are so small that this is not convenient. Besides, the result of such division would not affect the purpose of the table, which is to show the relative progress of emigration from the three countries named during three representative periods. The extent of these periods has been made long enough, it is thought, to minimize, if not entirely to obliterate, the effect of transient causes. A glance, however, at the figures by decades, as well as at the figures by years, as given in the table appended, would suggest that the indication shown in the table of double decades would become only the more pronounced the more minute the comparison of figures:

XXXVI.—*Immigrants arrived in the United States during each year ending June 30, from 1877 to 1885, inclusive, of British, German, and French origin, respectively.*

Year.	United Kingdom.	Germany.	France.
1877	38,150	29,298	6,856
1878	38,082	29,313	4,159
1879	49,968	34,602	4,655
1880	144,876	84,638	4,313
1881	153,718	210,485	5,227
1882	179,423	250,630	6,003
1883	158,092	194,786	4,821
1884	129,294	179,676	3,608
1885	109,508	124,443	3,493
1886	112,548	84,403	3,318
Total	1,113,659	1,222,274	46,453
Average per annum	111,366	122,227	4,645

It will be convenient, however, to confine the comparison to that which is made in the table of double decades.

There are three general conditions upon which emigration depends, under one or other of which heads all the specific causes of emigration must fall. These (of importance inversely to the order of mention) are: (*a*) Dissatisfaction of the emigrant with his own country. (*b*) Facility of means for relief from such dissatisfaction, chiefly the comfort, cheapness, and speed with which his destination can be reached, but, also, measurably, the attitude of the Government which he abandons, and that of the Government which he proposes to adopt. (*c*) The attractions of the country of destination.

Considered with reference to these conditions, the figures of the table show a very remarkable uniformity in the response which the emigrant makes to the prevailing condition of the period, whether he be British, German, or French. The uniformity, however, is not remarkable at all, but only natural, if it be borne in mind how universal is the application of the great laws which govern human action. The figures show that the Briton, the German, and the Frenchman instantly availed themselves of the remarkable increase of the facilities of ocean transit which began to be developed in the early part of the double decade 1841–1860, in which period they found at the same time increasing benefit from the attractions of America. The figures also show that the Briton expressed his appreciation of the suddenly developed advantages of this period by increasing his emigration nearly 500 per cent. over his emigration in the preceding period 1821–1840. The German by increasing his emigration over 600 per cent.; and even the Frenchman, whose emigration is so small as scarcely to be expected to sympathize with the general movement, by increasing his emigration 150 per cent.

Coming to the next period, 1861–1880, the first two conditions of emigration—viz: (*a*) Dissatisfaction with home, arising, in modern times, as has been abundantly demonstrated, chiefly from pressure of population; and (*b*) facility of transit—exist in this period with so much greater force than in the preceding period, that unless conditions (*c*) (attraction of the country of destination) be changed, it should be found [illegible] the United Kingdom and Germany, at least, had

the United Kingdom and in Germany, and what contrast the increase in these three presents to the almost stationary condition of France:

XXXVII.—*Inhabitants per square mile.*

Countries.	1820.	1840.	1860.	1880.
England and Wales	203	270	340	440
United Kingdom	172	221	240	290
Germany	124	145	174	217
France	148	165	175	180

(*b*) With respect to the increase of facility of transit it is unnecessary to do more than allude to the vast changes that occurred during the period under consideration, 1861–1880; the greater speed and safety with which the ocean could be crossed as compared with the preceding period; the smaller outlay required, and the better fare in return, law-ordered comfort substituted for the ancient horrors of the steerage; the arrangements for reception on landing in keeping with the advancing civilization of the age.

(*c*) But since, notwithstanding the enormous increase in the motives of emigration as dependent upon pressure of population and facility of transit, the figures show that the ratio of emigration, instead of greatly increasing actually declined, it follows that a great and unfavorable change has occured in condition *c* (the attractions of the United States).

The figures further show that while the attractions of the United States had declined in the ways of both nations, the Briton was able to express his sense of the decline by decreasing the ratio of his emigration 23 per cent., whereas some counteracting force in Germany compelled the German to content himself with expressing his sense of the decline by decreasing his ratio of emigration only 6 per cent.

Why the United States should have become so much less attractive to the kind of people who emigrate, viz, the laboring classes, in the period from 1861 to 1880, as compared with the period from 1841 to 1860, is a subject which need not be entered upon here. Attention being called to the evident fact, the incentive to remove the cause will be greater to those who have the power to do so.

It may be observed that "pressure of population," as used in this connection, is not altogether a uniform standard by which to draw comparisons between different nations. For example, one nation may have greater natural capacity for supporting a dense population than another. But if a certain long-past period is taken as the starting point for each nation, and the population of each increases in the same proportion, then the increase or decrease of the dissatisfaction of the laboring classes will depend upon the capacity of the governing powers to offset with wholesome laws the burden of increased competition. Some qualifications of this may be made, however.

Thus, in the case of England, the same rate of increase would cause a much greater intensity of pressure (as more fully explained further on under the head of "health") than in Germany; for the density of population in England alone (446 in 1881 to the square mile) is almost at the limit of endurance, while Germany's (less than half that of England and 25 per cent. less than that of the United Kingdom [illegible] margin still at its [illegible]

by England. Again, the attitude of Government in Great Britain is most favorable to emigration, while the demands of great military establishments in Germany and France permit emigration in a grudging way which finds its extreme manifestation in Russia and Turkey, where no subject can emigrate without the Czar's or the Sultan's permission.

The general conclusion from the foregoing is plain: That the population of France increases so slowly (it has been stationary since 1860) that the law-makers of that country find no difficulty in meeting the small additional burden imposed upon French productive power; and that the wisdom of the German law-makers in endeavoring to meet a much greater burden is vastly inferior to that of the law-makers of Great Britain, who more successfully dispose of a very much greater burden still.

It may be added that the uniformity that characterizes the fluctuations of the emigration of different nations to the United States confirms Mr. Giffen's conclusion that emigration depends not so much upon the state of affairs at home as upon prosperity or the reverse in the country of destination.

SOCIAL CONDITION OF THE PEOPLE.

The social condition of the people of this district is, in its general features, that of the people of England. The district contains its share of the upper classes, titled and untitled, and of the middle and lower classes. But, as would be anticipated from what has gone before, the predominance of the industrial and commercial interests tends to produce a condition of society more like that of our Eastern States—other sections, particularly in the south of England, presenting many features in common with the Southern States as they were before the late war.

Here, of all England, is to be seen the supreme effect of those extraordinary devices of economic legislation which have so changed in late years the relation which the income from trades and professions bears to that derived from lands, tenements, and titles, public dividends and annuities, Government offices and pensions. And Manchester, which, in the same period, has come to rank among the first cities in wealth and population, is the very embodiment of those forces which maintain this little island, against such odds, easily at the head of the world's commerce. As if to commemorate the triumph of these principles, the people have built them a great town hall at an expense of over $5,000,000; and in this, perhaps the finest municipal building extant, the mayor of Manchester holds a sort of plutocratic court, more brilliant in some respects than that of some of the political capitals. Within the city are public buildings and private warehouses of huge proportions and great cost, and its wealth spreads out over the land for many miles around in the homes of its merchant princes.

LANDLORD AND TENANT.

The new Domesday Book, published in 1873, contains the following

The annual valuation rose from the amount stated above to £18,623,910 in 1885, or about $90 per acre.

During the past quarter of a century the number of owners of land in Lancashire, and especially within this consular district, has very considerably increased. There is an extensively prevailing custom by which buyers of land purchase in fee-simple, but subject to the payment of a small rent (called a chief rent) to the original owner in perpetuity. This custom is peculiar to this part of England, the purchases in the south and other districts being affected by means of leases for long terms (usually 999 years), the fee-simple remaining in the original owner.

The purchaser under this latter system is to all intents and purposes the owner of the land, but his property is personalty and not realty, as is the case with the Lancashire purchaser. The importance of this distinction will be evident when it is remembered that the English law varies very considerably in relation to the two classes of property.

The purchase of small plots of land and the building of rows of workmen's cottages thereon has been a favorite form of investment with successful operatives and small capitalists. Large numbers of the dwellings of the working classes in the manufacturing towns are owned by their fellow-workmen or by small shop-keepers, working or retired; and the assistance afforded by land and building societies, large numbers of which have been formed, has contributed greatly to this result.

STATISTICS INDICATING THE SOCIAL CONDITION.

The figures of the census of 1881 indicate the urban character of this consular district, which then contained five towns of over 100,000 inhabitants; five of over 50,000, but less than 100,000; two of over 40,000; four of over 30,000; thirteen of over 20,000; and twenty of over 10,000. There were at the same time but twenty towns in all England containing over 100,000 inhabitants.

Taking the figures for Lancashire, which supplies nearly all the population of this district, and which will in its general features pretty accurately represent the district, I find that the average number of children attending school last year was 465,656, or 12 per cent. of the population at that time—the proportion for England and Wales being the same.

The number of paupers in Lancashire on January 1, 1886, was 77,287, or 2 per cent. of the population, the proportion for England and Wales being nearly 3 per cent.; the cost of their maintenance per head of the population was 52 cents, against 82 cents in England and Wales; and the proportion of such cost to the yearly ratable value of real estate was 2.08 per cent., against 3.8 per cent. in England and Wales in 1875, (the figures for the latter are not to be had for a later date.) The proportion of paupers would be smaller for this consular district, as distinguished from Lancashire. For example, Liverpool and Manchester show one pauper to 28 of the population, whereas in the large industrial town of Oldham it is but one to 63, and so on throughout the district.

Each acre in Lancashire supports nearly three persons—the density of population being four times as great as in England and Wales, and more than twice as great as in any other county outside of London itself.

The number of illegitimate children in Lancashire [illegible] the ten years, 1874 to 1883,

1,000 marriages in 1880. In England 116 divorced persons were married in 1880; and the rate of such marriages to the total number of marriages was as 6 to 10,000. A statement of the present divorce law of this country is transmitted herewith.

Of the 192 verdicts of murder returned by coroners' juries in 1884, 163 were for infanticide, against 87 in 1883; 45 per cent. of the number for 1884 were returned in the county of Middlesex, which contains two-thirds of London. There was no verdict of this character in 1884 in Liverpool, and but 3 in Manchester.

The following comparative tables will further illustrate the several subjects to which they relate:

XXXVIII.—*Number of persons in chief Lancashire industries engaged in such industries in 1881 in England and Wales and in Lancashire.*

Industries.	England and Wales.*		Lancashire.†	
	Persons engaged.	Per cent. of population.	Persons engaged.	Per cent. of population.
Cotton	530, 261	2	432, 146	12
General laborers	559, 769	2. 16	74, 050	2. 15
Coal and mining	407, 873	1. 6	64, 546	1. 9
Iron and steel trade	361, 343	1. 4	55, 728	1. 6
Makers of machines	160, 797	0. 6	35, 216	1

* Population, 1881, 25,974,439.

† Population, 1881, 3,485,819.

XXXIX.—*Houses and population of England and Wales and of Lancashire in* 1881.

Items.	England and Wales.	Lancashire.
Houses:		
Inhabited	4, 831, 519	655, 307
Uninhabited	386, 676	68, 929
Building	46, 414	5, 697
Population:		
Males	12, 639, 902	1, 669, 864
Females	13, 334, 537	1, 784, 577
Total	25, 974, 439	*3, 454, 441

* This is the population of the county proper, as distinguished from the "registration county." The population of the latter, as chiefly used in this report, is, as will be seen, 31,378 greater. But the census uses the population of "registration counties," for records of occupation, &c., while it uses the population of the counties proper for records of the character here tabulated.

XL.—*Average number of persons to a family, persons to an inhabited house, families to an inhabited house, persons to a square mile, inhabited houses to a square mile, and acres to an*

England and Wales and in Lancashire in 1881.

XLI.—*Distribution by sex and age of the population of England and Wales and of Lancashire in* 1881.

Ages.	Proportion, males to 100,000.		Proportion, females to 100,000.	
	England and Wales.	Lancashire.	England and Wales.	Lancashire.
Under 5 years	6,767	6,944	6,788	7,030
5 to 15 years	11,437	11,192	11,461	11,363
15 to 25 years	9,165	9,281	9,605	10,055
25 to 45 years	12,472	13,400	13,455	14,402
45 to 65 years	6,760	6,187	7,514	7,105
65 years and upwards	2,062	1,332	2,514	7,709
Total	48,663	48,336	51,337	51,664

XLII.—*Unmarried, married, and widowed in* 100,000 *of each sex, in England and Wales and Lancashire in* 1881.

Social condition.	Proportion males to 100,000.		Proportion females to 100,000.	
	England and Wales.	Lancashire.	England and Wales.	Lancashire.
Unmarried	61,932	62,041	59,226	59,255
Married	34,621	34,641	33,282	33,066
Widowed	3,440	3,318	7,492	7,679

XLIII.—*Births, deaths, and marriages,* 1884.*

Items.	England and Wales.	Lancashire.
Population, 1881	25,974,439	3,485,819
Births	908,584	129,815
Deaths	531,951	84,308
Marriages	204,205	29,859

* Registrar-general's report (1885) for 1884.

XLIV.—*Annual death rate per* 1,000 *living, at all ages, and at eleven groups of ages, in England and in Lancashire.**

Ages.	England.	Lancashire.
All ages	21.27	25.17
Under 5 years	63.12	82.22
5 to 10 years	6.43	8.47
10 to 15 years	3.70	4.34
15 to 20 years	5.33	6.06
20 to 25 years		
25 to 35 years		
35 to 45		

XLV.—*Persons returned as blind, deaf and dumb, and insane in* 1,000,000 *of the population of England and Wales, and of Lancashire.**

Physical and mental condition.	England and Wales.	Lancashire.
Blind:		
From birth	75	79
Others	804	654
Total	879	733
Deaf and dumb	512	460
Insane:		
Idiots	1,260	1,064
Lunatics	1,993	1,572
Total	3,253	2,636

* Census of 1881.

It may be observed that the census report points out the unmistakable general rule, so far as it can be judged from the returns, that agricultural districts produce a much larger proportion of idiots and imbeciles than industrial districts. The manner in which the returns are made, however, is referred to as rendering such returns of much less value than in the United States, where specialists were employed in making them.

XLVI.—*Public schools,* 1885.

Items.	England and Wales.	Lancashire.
Population, 1881	25,974,439	3,485,819
Number of schools	19,063	1,712
Number of children who can be accommodated	5,061,503	*630,571
Average number in attendance	3,406,076	465,656
Present at annual inspection	3,992,074	566,628

* Number on the register.

The cost per pupil in England, in the board schools, is £2 6*s.* 2½*d.*= $11.22.

XLVII.—*Statistics of crime in* 1884.

Items.	England and Wales.	Lancashire.
Population, 1881	25,974,439	3,485,819
Committed for trial:		
Males	11,952	2,083
Females	2,455	703
Total	14,407	2,786
Convicted	11,134	2,242
Acquitted	3,220	540

XLVIII.—*Savings banks (not including postal savings banks)*, 1884.

Political division.	Population, 1881.*	No. of banks.	Total amount invested with the commissioner for the reduction of the public debt.†	Total amount owing to depositors.	Amount of deposit per capita.	No. of receipts from depositors in year ending November, 1884.	No. of payments to depositors for same year.	Average amount of receipts.	Average amount of payments.	Average rate of interest paid to depositors.
England and Wales	25, 974, 439	329	$171, 855, 726	$172, 498, 382	$6 64	1, 376, 264	839, 854	$21 52	$37 27	$13 25
Lancashire ...	3, 485, 819	21	32, 695, 316	32, 777, 433	9 40	439, 675	262, 581	19 16	29 40	13 33

* For purposes of comparison with the population in 1884, per capita, it may be noted that the rate of increase of population during the decennial period, 1871–'81, was 1.44 per cent. per annum for England and Wales, and 2.2 per cent. per annum for Lancashire.

† This represents the capital of the banks.

Besides the savings banks deposits, the last post-office savings bank return shows $207,999,212.76 to the credit of open accounts in England and Wales on the 31st of December, 1885, of which $14,335,682.16 was due Lancashire depositors. But the chief depositories of the Lancashire workingmen's savings are the co-operative companies, whose records are understood to show a very remarkable degree of prosperity on the part of the people of this district, and which, as further on intimated, will appear in a future report on the "co-operative movement" in Lancashire.

MANNER AND COST OF LIVING.

I am indebted to Mr. Samuel Andrew for the following account of the manner and cost of living of the average workingman of this district.

Housing.—The housing of the average workingman in Lancashire is good, cheap, healthy, and for the most part pleasant.

Passing through Lancashire towns on the railway one is struck with the long rows of dwellings built of brick or stone, according as brick or stone may be more plentiful or cheap in the neighborhood. These are the houses of the Lancashire workingman. They are generally four roomed tenements built two stories high, with back and front door, back yard, and conveniences at the rear. The two lower rooms consist of a living part (fronting a main street) some 15 feet square, communicating with a back kitchen some 15 feet by 12. The floors are flagged for the most part where the houses are not cellared, the stairs ascending from the back apartments. The living part is provided with fire-grate, oven, and boiler. The oven is adapted to general culinary purposes as well as for baking the household bread, for the quality of which the Lancashire house wife enjoys a high and well-merited reputation. The back room is used as a laundry and lavatory, being fitted up with boiler, slop stone, and small pantry. The sleeping apartments up stairs are, as a rule, fairly lofty and airy. The rental of such a house, modern built, would be 4*s.* to 4*s.* 6*d.* per week according to position and quality. Smaller cottages of an older type may be found ranging in rental from 2*s.* 6*d.* to 3*s.*, but they are fast giving place to the better class described. These rentals generally cover all national taxations and for the most part the poor's rate, but as a rule the cottager contributes to local taxation for lighting, police, road repairs, school board, &c., at so much in the pound sterling on the annual rental.

"In the thriving town of O[illegible]"

man has been able to possess himself of a piano-forte and to give his children somewhat of a musical education in addition to the ordinary schooling. The ordinary Lancastrian has a great appreciation of music. Workmen's cottages, such as described above, of the better class cost £120 to £140 per cottage for erection, but in most cases a chief rent of 3*d.* to 4*d.* per yard per year is paid by the owner.

Eating.—The Lancashire workman is perhaps the best fed of his class in Great Britain. It is alleged that this is necessary to enable him to endure the hot temperature of the mills and workshops. Leaving home between 5 and 6 in the morning with a crust in his hand, he gets breakfast at 8 to 8.30, often at the mill, generally consisting of bread and butter, tea or coffee, sometimes with a couple of eggs or a rasher of ham or bacon. His dinner, 12.30 to 1.30, is a wholesome meal, almost always in part of meat and pudding or pie, his favorite dishes being a potato pie and a flesh pudding, which on working days form his alternate prandial meals, while on Sundays his dinner is of beef or mutton with pastry.

His third meal is generally his lightest, consisting of bread, butter, cheese, tea, salad, &c., while his supper consists of oatmeal porridge, milk, bread, jam, &c. He generally smokes or chews a vile strong tobacco called "twist," and drinks beer sometimes brewed from harmless herbs, but generally from malt and hops.

Since American beef and Australian mutton began to be so abundantly imported into England, the English workman has found more employment for his knife and fork. There was at first a conceit against foreign meat, but it is generally dying away. Good beef can be bought at 6*d.* to 8*d.* per pound, good mutton at 4*d.* to 7*d.* A preference is given to English-fed meat, and as a rule 2*d.* per pound more will be paid for beef and perhaps in some cases 3*d.* per pound more for mutton, than for foreign meats. American ham and bacon can be bought at 4*d.* to 7*d.* per pound, and American cheese at 4*d.* to 6*d.* The cost of living, on the style above mentioned, of an ordinary workman's family of five persons is said to be something less than 17*s.* to 18*s.* per week. The unskilled laborer with same family has sometimes to live on less than this cost; but perhaps he takes less meat and more tobacco, sometimes chewing and sometimes smoking.

Clothing.—The Lancashire workman in his holiday dress could hardly be distinguished from his employer, so far as dress goes. Clothing was perhaps never so cheap as at present. Huddersfield represents the manufacture of imitation woolen cloths, with a great mixture of shoddy and mungo, suitable for workmen's clothing. Ready-made men's suits can be had made up from these imitation cloths at any price between 18*s.* to 38*s.* and children's suits anywhere from 3*s.* to 18*s.* each. An excellent tweed suit can be bought fit for any man to wear at 50*s.* to 55*s.*, and beautiful worsted or woolen suits of the best quality at £3 3*s.* to £4 4*s.*

Women's garments are as cheap in proportion, and the factory girls dress well when away from the factory, with a tendency to be a little loud. Moleskins and fustians are less used than they used to be as factory gear by the British workman, who as a rule adopts his cast-off Sunday clothes for the purpose. The wearing of clogs is still a great institution in Lancashire, as well in the interest of health as of cheap-

more than they did in 1870. The producing power of the operative has been increased by about 10 to 15 per cent., but he has an allowance for increased speed to the extent of one-half, and when it is considered that the machines have been increased in spindles and improved in structure it is doubtful whether he is not receiving more wages to-day than ever he did before. When the cost of provisions is taken into account, the position of the factory operative in full work is at least 20 per cent. better than it was in 1870.

This estimate refers to hands in full work. Many of those who have been thrown out of work have suffered severely. There is not much short time in the mills. The idea seems to prevail that it pays best for a mill to run full time or to stop altogether.

WEALTH AND THE LIBERAL ARTS.

While Lancashire contains 13.3 per cent. of the population of England and Wales, the latest tax returns to be had (1883–'84) show that it pays 14.1 per cent. of taxes. The difference, however, is much more striking when the returns for the profits of business and industry only are considered, in which Lancashire's share is 16 per cent. This will more fully appear from the following comparative table:

XLIX.—*Gross amount of property and profits assessed*, 1883–'84.

Sources of income, &c.	England and Wales.	Lancashire.
From the ownership land, tenements, and titles	£154, 044, 183	£18, 706, 453
From occupation of lands and tenements	44, 780, 800	1, 857, 443
From trades and professions	243, 747, 555	38, 982, 381
Tax, *5d.* in the pound	7, 839, 316	1, 107, 072

NOTE.—The incomes from public dividends and annuities and from Government offices and pensions are not applicable to statistics of the separate counties.

The difference would be even more striking if similar returns could be had for the Manchester district as distinguished from the county.

Very substantial people, therefore, are the Manchester men, as their general characteristics, no less than their income returns, demonstrate; yet they have not disdained those lighter accomplishments which follow in the train of wealth. In art,* architecture, music, and the drama they have pushed their city to the first rank in the Kingdom after London itself. What position they held in literature and science may be inferred from the establishment here, in 1880, upon the foundation of Owens College, of the only university in the north of England. This seat of higher education exercises academical jurisdiction over the "University College" of Liverpool, and will probably eventually extend over the "Yorkshire College" of Leeds. Naturally the first free library in England (1653) was established in Manchester, and the free libraries of the city (including Salfra) now contain 200,000 volumes. In the Owens College the department of physical sciences, under Sir H. E. Roscoe (president of the British association for next year), probably supplies the best instruction to be had in the United Kingdom in those branches of education which are the handmaids of industrial advancement.

*It is under

IMPROVED CONDITION OF THE WORKING CLASSES

So much may be said for the greater folk. Under the same influences that have produced this vast wealth for the wealthy, the middle and the humbler classes have advanced to a degree of comfort never known by them before. Indeed there is not the same difference between the very rich and the lower classes which exists in many communities of the same wealth in our own country. The "line between the employing class and the employed" is perhaps "harder and sharper" than with us; but within the limits of this restriction, the great body of the people are more nearly on an equality than in similar communities in America, or, perhaps, it would be more exact to say that there is not so wide a social range as in such communities in America. Whatever may be the cause, the efforts of the laboring class to secure its share of the joint earnings of capital and labor, and of each class as against its superior in the social scale, so far as the capacity for earning a livelihood goes, seem to be more efficacious here than in similar communities in America.

So evident to a transatlantic visitor who takes the pains to look beneath the surface is the view I have expressed of this matter, that Prof. Goldwin Smith, on revisiting England the other day, was led to say, speaking of the whole country:

> Nothing seems more certain than that the largest portion of the newly-made wealth has gone to the class which lives by wages, and that this class has suffered least by depression. Profits have fallen and wages have risen, as political economy, now so much despised, said that they would. Low profits and reduced rents to the people mean cheap clothing and cheap bread. Articles of popular consumption are very cheap, while the range of popular consumption is evidently growing larger. Economic laws have done, and are doing, what the labor agitator wants to do by industrial war. The thrifty artisan, so far as I can see, is just as well off here as he is in the United States, saving that the line is harder and sharper here between the employing class and the employed. That "the rich are always growing richer and the poor poorer" seems to be the reverse of the truth.

So, also, it is the rapid growth of population in the northern industrial centers which offers the one barrier to that sucking of the life of the provinces into London, which Lord Roseberry deplored, the other day, at Linlithgow. This industrial concentration, away from London, does not restore the English country life which Lord Roseberry lamented the decline of, but it gives many millions of toiling men and women better lives than otherwise would be possible for them.

The vast improvements constantly making in labor-saving machines, which have reduced the number of persons engaged in agriculture from 1,657,138 in 1871 to 1,383,184 in 1881, have imposed an additional burden upon the industries, already sufficiently taxed, one would think, in supplying employment for the increasing population. A like decrease has occurred in the numbers engaged in the shipping business, notwithstanding an enormous increase in the carrying capacity of its fleets, and this adds still further to the burden upon the remaining industries. "A workingman," discoursing upon last winter's distress among the laboring classes, recently wrote to one of the newspapers as follows:

> When I said that economic forces are operating against the unskilled laborers, it [illegible] that the rough work of the world is being put more and more upon the [illegible] laborers which is flowing

of cash-boys in large shops. These are only a few obvious instances. The same process is going on in the mines and factories. Society as a whole derives benefit from these changes, and skilled laborers derive a special benefit on account of the demand thus created for the labor they have to dispose of. But the employment of the unskilled laborers is taken from them, and their lot, already too hard, is made harder still.

Harder, without doubt, but harder only for the particular individual whom these appliances have displaced. Not harder for the class which he now ceases to represent, on the contrary, incomparably easier, as the statistics of paupers, who are the final residuum from the overcrowding of the ranks of the unskilled laborers, and whose fluctuating numbers measure the sufferings of this class, plainly show. As will be seen, the table given further on exhibits the percentage of pauperism for five periods since 1850, which has steadily declined from 5.11 per cent. in that year, to 3 per cent. on the 1st of January of the present year.

Without pursuing the subject further a notable illustration of what I mean, viz, that the forces, whatever they may be, that control the relations of capital and labor here favor the laborer more than such forces do in similar communities in our country is to be found in the extent and degree of success attained by the co-operative movement in this district. This is not short of astonishing; and in a future report I shall endeavor to make plain how much our workingmen have to learn in this respect from their more fortunate brethren here.

INCREASE OF LEISURE.

The people of all classes here enjoy much more leisure than the same classes with us; and notwithstanding the increasingly heavy odds at which the Lancashire laborer contends with those who live in newer countries, where the raw material upon which his own labor is expended is produced, and where pressure of population, the heaviest handicap upon wages in the industrial race, is entirely wanting, he scores a continued gain in this respect on his employer. Comparing the condition of the working classes, especially those of the Manchester district, with their condition forty years ago, Mr. Jacob Bright recently said that they now had practically two Sundays in the week, and a considerable portion of Saturday besides.

DECLINE OF INTEMPERANCE.

The Examiner and Times newspaper of this city abridges from the last report of the inland revenue commissioners the following tables:

L.—*Consumption of wine, beer, and spirits, tea, coffee, and cocoa, per capita, in each of five years named, beginning with* 1852.

Date.	British spirits.	Foreign and colonial spirits.	Foreign wines.	Beer.	Tea, per head.	Coffee, per head.	Cocoa, per head.
	Gallons.	*Gallons.*	*Gallons.*	*Barrels.*	*Pounds.*	*Pounds.*	*Pounds.*
1852	.916	.177	.231	.608	1.909	1.207	.121
1862	.644	.177	.334	.661	2.694	1.178	.124
1872	.844	.285	.527	.885	4.010	.976	.245
1882	.809	.236	.406	.766	4.676	.885	.338
1885	.733	.221	.379	.746	5.022	.898	.402

It appears from these

IMPROVEMENT IN MORALS AND DECREASE OF PAUPERISM.

The registrar-general's report for 1885 shows that in England and Wales a great and steady improvement is taking place in the percentage of illegitimate births. In 1845 they were 7 per cent.; in 1855, 6.4; in 1865, 6.2; in 1875, 4.8; and in 1884, 4.7—the last being the lowest figure ever known.

The following table is compiled, for the first four dates from Mr. Mulhall's tables, for the last from the registrar-general's report:

LI.—*Decline in pauperism since* 1850 *in England and Wales.*

Years.	Number of paupers.	Ratio to population.
		Per cent.
1850	921,000	4.11
1860	851,000	4.26
1870	1,079,000	4.69
1880	803,000	3.09
1886	813,000	3.00

LII.—*The decrease in the burden of pauperism from* 1702 *to* 1880.

[As shown in another of Mr. Mulhall's tables.]

Period.	Annual expenditure.	Per inhabitant.	National income.	Percentage of burden.
		Pence.		
1702–'14	£910,000	41	£65,000,000	1.40
1760–'75	1,520,000	58	122,000,000	1.24
1783–'93	2,050,000	66	145,000,000	1.41
1815–'20	7,106,000	152	220,000,000	3.23
1830–'35	6,742,000	114	385,000,000	1.75
1841–'50	5,250,000	74	490,000,000	1.07
1851–'60	5,510,000	69	580,000,000	.95
1861–'70	6,740,000	77	720,000,000	.94
1871–'80	7,710,000	75	935,000,000	.82

Not less marked was the increase in thrift among the laboring classes as indicated by the increase in the deposits in savings banks since 1830, as shown (for the United Kingdom) in the following table:

LIII.—*Deposits in savings banks from* 1830 *to* 1881.

Years.	Amount.	Per inhabitant.
1830	£12,600,000	$4 38
1840	20,700,000	6 08
1850	27,680,000	7 30
1860	36,700,000	9 00
1870	46,230,000	9 73
1880	69,000,000	13 13

These give evidence of a steady decrease of crime, and recently of a greater proportionate decrease in the number of female criminals:

From the yearly reports relating to our convict prisons we are enabled to gauge with considerable accuracy the amount of crime that from one period to another is prevalent in the country, and it is certainly a matter of no small satisfaction to learn from the report just published that the number of sentences to penal servitude inflicted by the courts in England and Wales during the past year was 23 per cent. lower than in any previous year on record. This decrease in sentences for serious crime is, moreover, not of a temporary nature, owing to some transitory cause, but one that shows a continuous and progressive tendency.

During the five years ending in 1864, the average number of persons sentenced to penal servitude in the year was 2,800, and whilst these figures had dropped to 1,622 as the yearly average for the five years ending in 1874, a further diminution has reduced the average to 1,427 for the five years ending in 1884, and the actual number to 1,027 for the year ending in March, 1886; and this progressive decrease is all the more remarkable when we take into consideration that since 1864 the population has increased by over 7,000,000.

Another matter to which attention is directed in the report is that the decrease in the number of female criminals is in proportion larger than in the number of males. Of the total number of 1,027 males and females that received different sentences during the year, 708 were known to have never before been convicted; and on analyzing the crimes committed by these last we find, as in previous years, larceny and receiving stolen property still easily heads the list with a total of 219, followed by burglary, which accounts for 83 cases; rape, &c., with 74 cases, and wounding, shooting, &c., with 48.

During the twelve months there have been 25 murders, as against 38 in the previous year, and under the heading of robbery with violence the figures have dropped to 26 from 106 in 1884, and an average of 82 for the three previous years. The actual population in the prisons at the date of the last report is given as 8,396, of which number 821 were females, and of this total 3,344 were confined under sentences of five years.

Some curious statistics are given with a view to point out at what ages criminal propensities are most commonly developed, and from these we learn that while a far greater preponderance of criminals are to be found amongst males at ages varying from twenty-five to thirty-four, the female criminal does not become fully developed so early in life, and with that sex those at ages varying from thirty-five to forty-four easily bear off the palm of crime. To house our criminals twelve establishments were maintained during the past year, with a total staff of employés numbering 1,500. The gross total of expenditure in all these establishments amounted to £299,876, and by deducting from these figures the value of the convict labor (which was estimated at £164,271) and making allowance for some small sums obtained by the sale of old stores, &c., the net cost of our convict prisons last year amounted to £134,462.

The net charge per prisoner was, therefore, about £16 2*s*. 6*d*. Thus it appears that the expenses of convict establishments are very considerably reduced by the labors of the convicts themselves. For many years past a large number of convicts have been employed on Government works at Portland, Portsmouth, and Chatham, and now that these are completed, fresh employment has been found in making the harbor at Dover and on a new work for the war department at Luton, near Chatham.

The number of soldiers, sailors, and marines at present in the convict prisons under sentences passed by courts-martial amounts to 126 and shows a great improvement over last year, when there were 200 and greater still over the previous year, when there were 350. The institution of the star class, in which are concentrated prisoners who are known to have never before been convicted, and not to belong to the criminal class, has been found, we are told, to work very satisfactorily; and so far as it has gone there is reason to think it is successful in its object of preventing prisoners who enter prison unversed in crime from coming under evil influences while serving out their sentences. It is, in conclusion, satisfactory to find that the Discharged Prisoners Aid Societies are doing good work, and in the past year we learn that out of the total number of 1,815 male prisoners liberated, 1,256 were taken in hand by one or other of these societies, and of the 254 women discharged 76 received assistance.

The report of the commissioners of prisons also shows that whereas there were 20,833 persons in [illegible] of Mar[illegible]

prison was made a local prison; and a portion of the prison at Bodmin is about to be transferred to the admiralty for naval purposes.

The following table, prepared from Mr. Mulhall's tables and the census, further illustrates this subject:

LIV.—*Convictions for crime in England and Wales since* 1840.

Years.	Annual average.	Population.
1840–'49	21, 280	16, 752, 000
1850–'59	18, 291	18, 838, 000
1860–'69	14, 530	21, 202, 000
1870–'79	11, 720	24, 108, 000

BETTER HEALTH AND LONGER LIFE.

A prevailing characteristic of the inhabitants of this county, as will have been seen, appears to be an extreme manifestation in everything that tends to mark the individuality of a people. And even when we come to consider some of the things over which the circumstances of life leave it least control, this unique community shows no deviation from the rule that seems to govern it. The statistics of life and death show, unfortunately, that Lancashire stands at the head of the list of the counties in its annual death-rate, which, in the decennium 1871–'80 was 25.17 per 1,000 persons (26.99 males and 23.46 females), whereas the rate for England was 21.27 per 1,000 (22.61 males and 20.00 females). After Lancashire come Durham, 23.77; the West Riding of Yorkshire, 23.24; Northumberland, 22.74; Staffordshire, 22.44, and the city of London, 22.37.

If, however, we consider the decline in the death rate which has taken place in Lancashire in the decennium 1871–'80 as compared with the decennium 1841–'50, it appears that the improvement in the health of its people has been scarcely less marked than their improvement in other respects—such decline being from 28 per 1,000 in 1841–'50 to 25.2 per 1,000 in 1871–'80, or 10 per cent.; whereas for all England the decline is from 22 in 1841–'50 to 21.3 in 1871–'80, or but little over 3 per cent. And this notwithstanding the fact that the breathing space or elbow-room of the average Englishman—which was 2¼ acres in the earlier period and something over 1½ acres in the later—has been reduced only 30 per cent.; whereas, in the same time, the dwellers in Lancashire have suffered a diminution of these privileges to the extent of 40 per cent., their breathing-space and elbow-room having been a little under three-fourths of an acre in the earlier period, and in the later period not much over a third of an acre. Again, the full value of this disproportionate improvement in the health of the people of Lancashire, as compared with the rest of England, will be more strikingly illustrated if we consider the greater intensity of the effect of the pressure of population after a certain degree of density of population has been reached. In his official report to the registrar-general for last year, summing up the results of a comparison of several groups of

sons living on a square mile, yet it can scarcely make any difference, so far as health goes, whether in rural districts there be 2 acres or 3 acres on an average to each inhabitant.

The differences in the death rates in these sparse populations are determined by other conditions than aggregation.

There seem to be no natural causes for the comparatively high death rate in the case of Lancashire. The climate, taking it all in all, is healthy, the drainage good, the water supply abundant and pure, and the attention given by the authorities to sanitary matters generally, very great. I have no statistics upon which to base a comparison in this respect with the rest of England; but I should say, from the general character of municipal work in this district, and the large proportion of the district which is urban, that the people of Lancashire are at least as well cared for, in the matter of health, as any of their neighbors. The explanation must be sought, therefore, in the artificial conditions of life of the people. The density of population which, as has been pointed out, is twice as great as that of any other county outside of London, is, without doubt, one of the chief causes. But this does not account for all the difference, for London shows a lower death rate than either of the five districts enumerated above. These, however, are all industrial districts, and it would appear that there is something in the nature of the work done which tries the health in one way or another; for example, the muscular strain required in boiler and machine working; the dangers as well as the lung-destroying dusts of many kinds of mining and metal-working; the overheat of the weaving sheds and the cotton and mineral dust given off therein; the dense fog of steam in which the dyers, bleachers, and printers work; the noxious fumes from the great chimneys that fill the air.

Says Dr. Ogle:

The direct consequences of close aggregation are probably as nothing in comparison with its indirect consequences or concomitants. * * * Moreover, and perhaps more than all, it is in these crowded communities that almost all the most dangerous and unhealthy industries are carried on. It is not so much the aggregation itself, as these other factors which are associated with aggregation that produce the high mortality of our great towns or other thickly-populated areas.*

Speaking of the cotton industry, he says:

In the cotton factories the temperature of the weaving sheds is described in a recent report by Dr. Bridges to the home secretary as "tropical and relaxing," and dust, composed partly of filamentous particles of cotton and partly of mineral substances used for sizing, is stated to be a notable feature in most of the sheds.

In harmony with these facts, the statistics of the causes of death show that the deaths in Lancashire from phthisis and diseases of the respiratory system averaged, during the years 1870–'80, 30 per cent. of the deaths from all causes.

Applying Dr. Ogle's rules, viz, that the direct consequences of close aggregation are as nothing in comparison with its indirect concomitants, and that more than the direct and all the other indirect effects of aggregation combined are the dangerous and unhealthy industries which exist in such communities, it does not seem difficult to draw the general conclusion that it is a combination of the two causes, aggregation in its simpler form and aggregation as the forerunner and concomi-

*The indirect effects of aggregation omitted from this quotation and represented by asterisks, are "abject want, filth, crime, drunk[illegible] competition, and feverish [illegible] be[illegible]

tant of dangerous and unhealthy industries, which produces the high death rate in London and in Lancashire; and that it is the greater death-causing power of that element which predominates in Lancashire (viz, the industrial) than that which predominates in London (viz, excessive aggregation leading to commercial rather than industrial development) which produces a higher death rate in sparser-settled Lancashire.

A new life table, based on the returns from 1871–'80, is given in Dr. Ogle's report, which shows the average expectation of life of a male English infant at birth to be 41.35 years, against 39.91 years by the old table (1838–'54) a gain of 1.44 years, or nearly a year and a half. For females the new table shows 44.62 years against 41.85 in the old, a gain of 2.77 years.

In his inaugural address at the opening of the sanitary congress at York, in September, Sir T. Spencer Wells, the president of the congress, said:

When they spoke of the prolongation of life, they thought chiefly of the advantage to individuals, their better health, and their augmented power of enjoyment. That was a great deal, but it meant more for the state. During the forty-nine years that registration had been in force, about 8,000,000 had been added to the population of the United Kingdom.

They would not be far away if they put the average duration of life in Great Britain before a century ago at about thirty years; now, according to the healthy life table, it was forty-nine years, and each individual of the 8,000,000 increase in the population was worth to the state £150; and if only 2,000,000 of the increased number was the fruit of sanitary and medical work, their economical value was at least a clear gain of £300,000,000 since the foundation of the sanitary institute.

INCREASED CONTENTMENT OF THE WORKING CLASSES.

After writing the foregoing portion of this report it occurred to me that the conclusions to which the facts and figures therein contained had irresistibly forced me, were so completely at variance with information hitherto furnished to the Department that I determined to test them by an appeal to eminent authority. I accordingly addressed identical notes to Sir J. C. Lee and Mr. Provand, M. P., containing a request for the favor of a reply to these two questions:

(1) In your opinion, do not the people of the Manchester district emigrate to a less extent than those of the rest of England in proportion to population? My investigations lead me to believe that such is the case.

(2) If so, is it not due, in your opinion, to the fact that such a large proportion of the population of the district is engaged in the cotton industry, and that the operatives in this industry are increasingly contented to remain at home because they are getting a larger share than formerly of the joint earnings of capital and labor?

Following are the replies of these gentlemen:

Sir J. C. Lee to Consul Hale.

56 MOSLEY STREET, *Manchester, November* 12, 1886.

DEAR MAJOR HALE: In reply to your note of the 9th instant, I have great pleasure in making the following statements, from which I think you will be able to deduce the information you desire.

I should class the various grades of labor in our community under five heads:

	Per cent
.....	10

Those in the first and second classes are in receipt of good wages, and rarely emigrate. Being good workmen they can obtain steady employment, have few taxes to pay, their house rent is very moderate, and their food exceptionally cheap.

Those in the third class, being younger men, are inclined to ramble, but not to a great extent, as they have all the advantages of their more skilled brethren, with the one exception that they cannot depend upon such steady employment.

The fourth class is the one that supplies the largest quota to the emigration returns, but so long as they can get employment they do not go away in large numbers, for the reason that their food and rent are cheap, and in hard times they can get assistance from the union and from private charity.

The fifth class does not emigrate. It consists of aged and impecunious persons—mostly paupers, many of whom eke out a living in a desultory way by a little occasional work, and are more or less chargeable to the union, when by idleness or want of thrift they are brought within a measurable distance of starvation.

As a whole the people of this district do not look upon emigration with favor, and I do not think we supply any large number of emigrants—certainly not in proportion to our population. The industries in the Manchester district are very varied, *e. g.*, cotton, iron, and chemical branches of trade, and there is always a good demand for good work people, who are in receipt of relatively higher average wages than has ever been known in my time.

Trusting that this brief expression of my opinion on this point may be of any use to you,

Believe me, very faithfully yours,

JOSEPH C. LEE.

Major HALE,
United States Consul, Manchester.

Mr. A. D. Provand, M. P., to Consul Hale.

38 LLOYD'S HOUSE, ALBERT SQUARE,
Manchester, November 12, 1886.

DEAR MR. HALE: On my return from London I received your note of the 9th instant. I have to reply to your two questions as follows:

(1) It is the case that the Lancashire people emigrate less than those of most of the other counties in England. So far from emigrating the increase of the population of Lancashire has for a long time past been added to by immigration, the increase as shown by census returns having been greater than would have been the natural increase. For the ten years ending 1881 the average increase throughout England (I am not now speaking of any other part of the United Kingdom) was 15 per cent., but the increase in Lancashire was 22½ per cent. West Yorkshire, which is also a manufacturing district, and contiguous to Lancashire, has likewise increased in population at a higher rate than would have been the case without immigration. The increase for the whole of Yorkshire has been 18½ per cent., but this has been chiefly in the western districts, and if the figures for this part of the county were separately obtained the increase of population would no doubt be as high, if not higher, than in Lancashire.

(2) The foregoing is due to the fact of the continued extension of the manufacturing industries in Lancashire during the past fifty years, and also to the fact that this extension has taken place away from the seaboard, for, notwithstanding that Liverpool is in Lancashire, almost the whole of the industries are carried as in the interior of the county. This prevents the growing up of maritime tastes, which lead to emigration. Another point to be noted is that the earnings of the cotton operatives are in some departments higher to-day than they ever were at any previous time, and in no departments are they less than they were. I use the word "earnings" and not wages because, although the nominal wages are less in many districts on account of the speeding of the machinery and other causes, the earnings, as I have said, are in some cases greater, and in all other cases as great as they have ever been.

I am yours faithfully,

A. D. PROVAND.

Maj. E. J. HALE,
Consul of the United States, Manchester.

It is not necessary to

Sir J. C. Lee, who was knighted in 1882 for his eminent services in connection with the negotiations for renewal of the French treaty, is probably the highest authority on commercial matters in the Kingdom. Mr. Provand is the very able member of Parliament whose opinion was sought (together with that of Sir J. C. Lee and some others) by the British foreign office, and embodied in the official memorandum on the subject of the character of consular reports, which the Department of State has recently issued for the information and guidance of the consuls of the United States.

CAUSES OF THE GROWING CONTENTMENT OF THE WORKING PEOPLE.

The shifting of the wealth of the nation, as indicated by the income-tax returns, more and more towards the industrial and commercial classes is not a less marked feature of the past forty years than the vast accumulation of wealth* itself which has taken place in those years. It is not possible also to determine from the returns what class of the beneficiaries just mentioned has received the greater proportionate share of the benefit. But the statistics and testimony here adduced tend to the conclusion that the advantage rests with the employed; and this conclusion, while probably true as to the whole country, is more certainly true as to this district.

The following tables, for the United Kingdom, extracted by Mr. Mulhall from the official "statistical abstract," throw further light upon the causes of the growing contentment of the people:

LV.—*Paupers.*

Year.	Number.	Per 1,000 inhabitants.
1850	1,308,000	48
1860	973,000	34
1870	1,279,000	41
1880	1,016,000	29
1885	982,000	27

LVI.—*Criminals.*

Years.	Committals per annum.	Per 1,000 inhabitants.
1850–'59	41,424	151
1860–'69	27,605	92
1870–'79	22,812	69
1880–'85	20,763	59

LVII.—*Children at school.*

Political division.	1875.	1885.	Per 1,000 inhabitants.	
			1875.	1885.
	1,863,200	3,371,300	76	123
		[illegible]	89	117

LVIII.—*Annual average of letters posted.*

Period.	Millions of letters.	Letters per inhabitant.
1841–'50	277	10
1851–'60	466	17
1861–'70	724	25
1871–'80	982	30
1881–'85	1,319	37

Compared with population, the number of letters last year was forty-three per head in England, thiry-two in Scotland, and eighteen in Ireland. During the past ten years the number of telegraphic messages has risen from twenty-one to thirty-nine millions, an increase of 86 per cent.

LIX.—*Bankruptcy.*

Period.	Number of bankrupts.	Amount.	Ratio of assets.
			Per cent.
1871–'76	8,038	£20,200,000	31
1877–'82	11,167	25,400,000	29
1883–'85	6,072	18,100,000	31

LX.—*Consumption of alcoholic-drink.*

Year.	Gallons per inhabitant.			Equivalent in alcohol.
	Beer.	Spirits.	Wine.	
1875	34.2	1.29	0.53	2.33
1881	28.6	1.08	0.44	1.92
1885	26.8	0.97	0.38	1.79

The consumption was 30 per cent. higher in 1875 than it is at present. It is still higher in England than in the sister kingdoms, the average of alcohol consumed being 1.90 in England, 1.67 in Scotland, and 1.23 in Ireland, per inhabitant.

LXI.—*Food.*

Articles.	1875.	1885.
Meat ..... pounds..	95	106
Sugar ..... do	63	74
Tea ..... ounces..	72	80

LXII.—*Thrift.*

	1875.	1885.
Savings banks.....		

The accumulations of the working class under the above two heads have averaged seven millions sterling per annum.

ASSISTED EMIGRATION.

Up to this point only that portion of the emigration from this country which proceeds voluntarily and without aid has been commented upon. The statistics given include, of course, all emigration; but my comments have been restricted, as just stated. As there is practically no deportation from the United Kingdom of chronic paupers, or insane or other helpless persons, it will be necessary now simply to consider the question of "assisted emigration."

It has been shown elsewhere that the laws of this country have succeeded for some forty years past in counteracting the motive to emigration in a steadily increasing degree, and that this has occurred notwithstanding the enormous increase of the motive, so far as it depends upon natural causes. But consummate as the Briton's economic genius has been shown to be, it has not yet been able quite to overcome its adversary's start. As soon as hard times increase the pressure of surplus population, attention is more earnestly directed to this cause of labor competition. The continued depression of trade, which existed, without serious check, up to a few months ago, redoubled the efforts of those who look to relief from emigration. The effect of these efforts, as made by those who were chiefly interested, whether from philanthropic or personal motives, in reducing the competition, may be thus stated:

There was a debate in the House of Lords on the subject of emigration to Canada, in March, 1884. Subsequently there was formed a "national association for promoting state-directed colonization," under high patronage and with a powerful executive committee. The national council connected with this association embraces the names of many representatives of several trades in various parts of the Kingdom, among them representatives from thirteen of the principal towns in this district. In March last a deputation from this association, headed by Lord Brabazon, its president, waited upon Earl Granville, then secretary of state for the colonies. And in April a debate ensued in the House of Lords, from the published accounts of which the following extracts will be interesting:

Debate in the House of Lords April 2, 1886.

"In the course of ten years, from 1871 to 1881," said the Earl of Harrowby, "about 3,250,000, or nearly the population of London, had been added to England and Wales alone, and since the last census nearly 1,500,000 more must have come into existence. There was every reason to fear that agriculture must provide less and less occupation every year. Between 1871 and 1881, 1,000,000 acres had been converted from arable to pasture, and in 1881 the number of proprietors and attendants on agricultural machines had increased to 4,200 from 2,100 in 1871. Then in 1861 there were 172 dwellers in towns to every 100 in the country, but in 1871 the proportion had risen to 192 and in 1881 to 212; and there was no reason to hope that the extension of small holdings and allotments, desirable as this was, could furnish anything like an effective [illegible] fact that there was not yet apparent much suf-

exactly the same tale. The number of Scotch emigrants was 8,000 in 1877, 32,000 in 1882, and 21,000 in 1885, while the number of Irish emigrants was 22,000 in 1877, 105,000 in 1883, and 60,000 in 1885. The diminished number of emigrants last year might be accounted for partly by the state of the labor market abroad and in the colonies; but however that might be he contended that emigration had not afforded that relief which the state of our labor market required. The returns relating to net emigration were still worse than those to which he had just referred. Taking British and Irish emigration only, after deducting immigrants and emigrants, the numbers were 31,000 persons in 1877, 246,000 persons in 1883, and 122,000 persons in 1885. These were the numbers of persons who had been actually deducted from the labor market of this country. He feared that instead of voluntary emigration being in our hour of need a great resource, it was more and more ceasing to supply our need. This question had been brought forward on two occasions within the last twelve months. An important meeting was held at the Mansion House, and since then the noble earl who presided over the colonial office received in February an important deputation headed by Lord Brabazon. That deputation represented 170,000 workmen, and they made two requests. The first was for state-directed emigration, viz, state-planned new settlements with special arrangements, and state loans to enable settlers to go out. He believed that boards of guardians were now empowered to use the rates for emigration. But this was a very grave and serious matter, and he would like to know more about the details of it before he gave a decided opinion in favor of it. At all events the subject was clearly worthy of consideration. The second great point pressed upon the Government was that information should be given to every part of the country as to the colonial opening; that is to say, that the colonial office should get the best information together and forward it to many centers throughout the country. He believed a great deal of good would be done if that suggestion were acted upon."

The Earl of Iddesleigh said, "I hope that the inquiries we have heard of to be made by the colonial office, in conjunction with other departments, will not be limited to the prospects of workingmen or emigrants going out of this country, but that they will lead to the furnishing of information likely to be useful, bringing before the manufacturers and people of the country the position and prospects of the colonies themselves."

THE EMIGRANTS' INFORMATION OFFICE.

The final result of the efforts described above was the establishment of an "emigrants' information office" in London, on the 11th of October. In the Guardian newspaper of this city there appeared, shortly before, a history of state-directed emigration from 1834 down to the establishment of the "information office," and a statement of the character and functions of the latter, as follows:

State interference in emigration began in the reign of William the Fourth, taking the form of an act "to empower His Majesty to erect South Australia into a British province or provinces, and to provide for the colonization and government thereof." The preamble recites that "divers of His Majesty's subjects possessing among them considerable property are desirous to embark," and that "it is highly expedient that His Majesty's said subjects should be enabled to carry their said laudable purpose into effect;" and the act provides that three or more "colonization commissioners for South Australia" shall be appointed to provide for the sale or letting of waste lands, and to apply all moneys so received to the purpose of an "emigration fund," to be employed "without any deduction whatever" (except for working expenses and colonial charges) in conveying "poor emigrants" from the United Kingdom to the colony. There is little doubt that considerable jobbery took place under this scheme, and a further development was forced on the Government six years later by the formation of the emigration board in 1840. This consisted of three commissioners with £1,000 each, whose expenditure was met by an imperial "emigration vote" of £1,000, supplemented by proportionate contributions from the proceeds of the sales of land in the several colonies. Reckless sales of land and an unwise policy of selection of "poor emigrants" shortly reduced the majority of the colonial land funds to so low an ebb that in 1843–'44 the tax-payers at home were called upon [illegible]

on the colonial office vote for one of the clerks then transferred to that department "for emigration business." It is this gentleman who will have the chief share in the direction of the new office described below.

Since 1878 there has been an entire cessation of action on the part of the home Government in assisting emigration, whether pecuniarily or otherwise. Strangely enough, however, the establishment of the new "emigrants information office" was due to a movement started during the distress prevalent last winter with a view to obtain state help in furthering a great scheme of colonization. It is true that the National Association for State-directed Labor would indignantly repudiate any idea of state help, but after the interview of Lord Brabazon and his friends with Lord Granville at the colonial office in March last, the representative of the tax-payers could hardly share their views. Their scheme, briefly, was to establish a permanent colonization board under the colonial office, on which should serve, with other persons, the agent general of such colonial governments as should be disposed to co-operate. This board was to obtain grants of land from those colonial governments, and by loan from the Imperial Government to transport to such lands pioneer emigrants, at fixed wages, to prepare the soil for the advent of the detachments of selected emigrant colonists, who were to be located on 80-acre allotments, to be mortgaged to the colonization board for the expenditure to be incurred on behalf of the emigrants. In addition to transport, this expenditure was to cover furniture, implements, and maintenance, until the first harvest, plus administrative and pioneer expenses. The mortgage was to be repaid within a maximum period of ten years, with 4 per cent. interest. It was estimated that two millions sterling would be required in the first year. This scheme, so far as it was connected with the direction of emigration on the credit of the imperial exchequer, met with little sympathy from the government of the day, even though it had the support of Mr. Froude and Mr. Arnold White, and was painted in glowing colors alike by Mr. Alfred Simmons, the secretary to the Kent and Sussex Laborers' Union, and by Mr. Maudsley, representing the Manchester Trades Council. It was urged that there was no margin for possible failures, and there was neither a prospect that the colonies would contribute to the expenditure nor a certainty that they would allot the requisite lands to the proposed board.

On the other hand, it had long been felt by successive Governments that adequate measures were not being taken to spread among the working classes trustworthy information on the subject of emigration. Laborers anxious to emigrate were unable for the most part to obtain a simple statement of the prospects open to them even in a single colony, and there nowhere existed a systematic digest, periodically issued, of the comparative facilities for emigration and of the demand for labor in the several colonies. Whilst, therefore, a distinct objection was raised against pledging the credit of Great Britain in support of a scheme of state-directed emigration, Lord Granville readily adopted the idea of an "emigrants' information office." Considerable difficulty appears to have been experienced in overcoming the traditional reluctance of the treasury to incur new expenditure, but in the end the colonial office carried its point, and the treasury consented to find the money required for the new undertaking. The emigrant's information office thus originated is not a Goverment department. It is merely a subsidized institution having relations with the colonial office. It is managed by an unpaid committee of management, to be nominated by the secretary of state for the colonies, which will include gentlemen prominent in promoting emigration, together with representatives of the laboring classes.

* * * * * * *

The committee will be responsible for their expenditure, but they will receive £650 a year as a grant from votes of Parliament towards such expenses, together with franking privileges from the post-office for all correspondence, whether to or from their office. The stationery office will also undertake the committee's printing and supply all stationery free of charge. Taking all these items into consideration, the subsidy from public funds may roughly be estimated at £1,000 a year.

The functions of the emigrants information office will be to collect information through the agents-general from the various colonies, and to tabulate the returns obtained. The publications embodying this information will be of three kinds, to be revised quarterly or more often if requisite. In the first place there will be a general circular, which will be hung up in every post-office in the Kingdom, containing general information for intending emigrants to Canada and the Australasian and South African colonies. This will give succinct particulars of the full cost of passage at steerage rates to the colonies in question, together with the length of passage in each

request, as are farmers with some capital; whilst New South Wales makes a special appeal for navvies and men connected with the building trades. The general circular will conclude by giving the names and addresses of the colonial representatives in England to whom, or to the authorities of the emigrants' information office, application should be made for further particulars. In the second place there are special circulars, dealing in greater detail with the facts respecting each of the colonies referred to in the general circular. Each is divided into two parts, the first dealing with passages and the local demand for labor, and the second furnishing important particulars as to the climate, population, products, religion, education, cost of living, and land system. The two latter heads are fully treated, and will be worthy of general perusal by all interested in colonial matters, as well as by intending emigrants. The above two forms of circular will be issued gratis to applicants, but the moderate sum of a penny is chargeable for the third series of the committee's publications, styled "handbooks," in which fuller attention will be given to the points dealt with in the circulars. These handbooks will be procurable through booksellers in the usual way, or from the office direct. It is in contemplation, it is understood, to distribute the special circulars freely to all clubs and associations of the working classes, and to such philanthropic bodies as may seem likely to circulate them among those classes. At the head of each publication issued will be the notice that "the emigrants" information office has been established under the supervison of Her Majesty's Government for the purpose of supplying intending emigrants with useful and trustworthy information respecting emigration to the British colonies. The information issued by the office to the public is mainly obtained from the various colonial governments and their representatives in this country. No pains are spared to make the information as correct as possible, but the committee of management cannot undertake to hold themselves responsible for the absolute correctness of every detail.

* * * * * * *

With such unrivaled opportunities of information furnished to them by the two new departments, the wage-earning classes will be in a most favorable position to dispose of their labor to the best advantage; they will know where their services are in request, and there will be no longer any reason why ignorance concerning England's colonial possessions should place intending emigrants at the mercy of the sharks who have fattened on an earlier generation. The great difficulty experienced hitherto has been to select suitable emigrants. Of the unskilled and of ne'er-do-weels there has at all times been a supply far in excess of the colonial demand, but the men that a young colony needs to develop its resources must above all be practical—men aquainted with agriculture and handy with simple tools. For the skilled artisan also, especially if belonging to the building and allied trades, there is an increasing demand. The emigrants' information office should reach these men; and when we say men, it should not be forgotten that female emigration is more urgently needed than male.

There are some three-quarters of a million of women in the United Kingdom in excess of the total male population, but it is calculated that even this immense number would scarcely make up the opposite deficiency in the colonies. There is nothing, however, in the emigrants' information office which will justify any expectations of imperial contributions to the cost of emigration. It will be a center of imparting information and its functions will be strictly defined by its title.

ATTITUDE OF THE GOVERNMENT.

From what has gone before, it will be readily understood that the British Government favors emigration, but preferentially to its own colonies. The idea of "imperial federation," to which the display at the late Colonial Exposition gave impetus, accentuates the preference. Otherwise its attitude and the present state of the law on the subject of emigration, is set forth in a memorandum issued in September by the local government board, as follows:

Expenditure for emigration has, in the case of unions, become a common-fund charge, and where the guardians of a union expend money on emigration the written concurrence on the part of the guardian or guardians of any particular parish in the union is not required. Except in the case of orphan or deserted children under sixteen years of age, guardians of unions can expend [illegible] person residing the[illegible]

arate parish can expend money in the emigration of any poor person residing in such parish who is settled therein, or irremovable therefrom, whether in receipt of relief or not. They can also expend money in the emigration of orphan or deserted children who have no settlement, or the place of whose settlement is not known, provided they are chargeable. The local government board have no wish to discourage boards of guardians in the discretionary exercise of their powers of aiding the emigration of poor persons, providing due regard is had to the wishes of the colonies or of foreign countries, and such arrangements are made as are required for the welfare of the proposed emigrants. Strong objections have from time to time been urged on behalf of the colonies against the emigration from England of adult paupers. The colonists are unwilling to run the risk of thus receiving persons of bad character, or those who, from weak intellect or other causes, might become burdensome to them. As regards Canada, the board are informed that assisted passages are only given to farmers, farm laborers, and domestic servants. In consequence of representations which have been made by the Government of the United States, the board feel themselves precluded from sanctioning emigration to that country at the cost of the poor rates. The only cases in which the board consider themselves justified in departing from their general rule in this repect are those in which the emigrants are going to join a relative who is in a position to assist in maintaining them on their arrival, and who have given evidence of willingness and ability to do so by remitting the whole or a part of the passage-money. In cases of this kind the board are willing to consent to the payment of a small sum to cover the cost of conveyance to the port of embarkation, but in no such instance do they sanction the payment of any part of the passage-money or the cost of the outfit. It may be mentioned that, under an act of Congress passed in 1882, passengers arriving in the United States are required to be examined, and if on such examination there is found to be any person unable to take care of himself without becoming a public charge he is not permitted to land. The board are in communication with the Canadian Government with regard to the inspection of orphan and deserted children sent out to the dominion by boards of guardians, and pending the receipt of reports on such inspections, the board are not sanctioning the emigration of orphan and deserted children to Canada. Before deciding to issue an order authorizing expenditure in respect of any proposed emigration, the board require to be furnished with a copy of the resolution of the guardians and with a list and description of the persons desirous of emigrating.

The statistics of emigration are obtained by the Government chiefly from the records of the ship-masters of such vessels as come under the "passengers acts," (section 4, act of 1855, and section 4, act of 1863). The records are prepared in accordance with sections 16 and 17 of the act of 1855, as amended by section 6 of the act of 1863. Copies of these acts, which, as will be seen, contain very complete regulations for the comfort and safety of emigrants, will be found herewith.

SPECIAL PRIVILEGES OR RATES OF FARE.

Emigration from the United Kingdom to other countries than the United States and the British possessions is so insignificant in extent that this division of the subject may be confined to considering the special privileges and rates of fare offered by the latter. There was published in 1877 an official statement—"No. 34, Colonization Circular"—which contained a digest "of nearly all the statutes of states and colonies with which the emigration of the United Kingdom is related," but I have failed to find any one who possessed a copy, and Mr. Giffen writes me that "the board [of trade] regrets that they are unable to supply [me] with a copy of the colonization circular referred to, every effort having been without success." By the

This information will be found in circulars Nos. 1 to 10, inclosed herewith.

DIGEST OF EMIGRATION—OFFICE CIRCULARS.

The following is an abridgement of the information contained in the circulars:

The time ordinarily taken on voyage, and the lowest rate of unassisted passages to Canada and the Australasian and South African colonies, is as follows:

LXIII.—*Length and cost of passage.*

Colonies.	By steamer.		By sailing vessel.	
	Average time.	Lowest fare.	Average time.	Lowest fare.
	Days.	£ *s.* *d.*		£ *s.* *d.*
Canada	10	4 0 0	.....	.....
New South Wales	52	16 16 0	About 3 months.	13 13 0
Victoria	49	16 16 0	Nearly 3 months.	13 13 0
South Australia	42	16 16 0	.....do	13 13 0
Queensland	55	17 0 0	About 3 months.	13 13 0
Western Australia	49	16 16 0	.....do	14 14 0
Tasmania	40 to 50	16 0 0	.....do	15 0 0
New Zealand	45	16 16 0	.....do	13 13 0
Cape	20	15 15 0	.....	.....
Natal	26 to 28	18 18 0	70 days	*16 16 0

*Second-class.

PASSAGES.

Free passages.—The only colony to which free passages are given at the present time is Queensland, and the system in that colony applies only to single female domestic servants and to agricultural laborers.

Assisted passages, Canada.—Assisted passages cost £3 to each adult—the system applies only to agriculturists, farm laborers, and their families, and to female domestic servants.

Western Australia.—Assisted passages cost £4 to each adult—the system applies mainly to farmers and agriculturists, and a deposit of £100 (to be refunded on arrival in the colony) is required before any assistance is given.

New Zealand.—Assisted passages cost £10 to each adult—the system applies only to farmers and agriculturists with small capital. Before any one of this class receives such assistance he must show that he is possessed of £100, and an additional £50 for each member of his family over 12 years of age.

No assisted passages are given at the present time to New South Wales, Victoria, South Australia, Queensland, Tasmania, or Natal; and in the case of the Cape they are given only to certain emigrants under contract with employers in colony.

Nominated passages.—Queensland, Western Australia, New Zealand, D

Passages at low rates are also provided for laborers engaged by Queensland employers for a term of years (for particulars see circular relating to Queensland).

Western Australia.—Without payment, to a limited number of nominees, approved by the Crown agents for the colonies.

Tasmania.—Adult males, not over 40 years of age, £5; females, not above 40 years of age, £5; married couples, not above 45, £6.

New Zealand.—Over 12 years of age, £10. As a rule, confined to agricultural laborers and female domestic servants.

No nominated passages are at present given to Canada, New South Wales, Victoria, South Australia, the Cape, or Natal.

ARRANGEMENTS ON LANDING.

Canada.—Temporary houses or stations for emigrants are provided at the ports of Quebec and Halifax and the other principal towns in the Dominion, and the arrangements made are very complete.

New South Wales.—At times when assisted passages are granted by the colonial government, a home is opened at Sydney for the temporary reception of government-assisted female domestic servants on first landing.

Queensland.—There are stations at the principal ports and in various parts of the colony in which government-assisted emigrants are received free of charge for a few days after arrival.

Western Australia.—There is a station at Fremantle for the reception of government-assisted emigrants.

New Zealand.—There is a station at every principal port for the reception of government-assisted emigrants.

None at present in Victoria, South Australia, Tasmania, the Cape, or Natal.

BEST TIME OF ARRIVAL.

Canada.—April to June (for agricultural laborers); not the winter months.

New South Wales.—Any month; September for preference.

Victoria.—Any month; September for preference.

South Australia.—May to October.

Queensland.—April to October, inclusive.

Western Australia.—September.

Tasmania.—October.

New Zealand.—October to February, inclusive.

Cape.—About July (for agricultural laborers).

Natal.—Any month; August for preference.

PRESENT DEMAND FOR LABOR.

Canada.—There is an opening for tenant farmers with capital, for male and female farm servants, and for female domestic servants. There is some opening for persons connected with [illegible] and for fe-

Little or no demand in Victoria, South Australia, New Zealand, the Cape, and Natal, except for female domestic servants.

In all the colonies there is an opening for farmers with capital.

EFFECT UPON EMIGRATION TO THE UNITED STATES.

I am not disposed to think that the special privileges or rates of fare now offered, or which have been offered, by the colonies, materially affect emigration from this country to the United States, except that portion which is contributed by the agricultural classes. Under the heading "the dispersed abroad," the large emigration from Canada to the United States of persons of British origin who had first emigrated to Canada, was noticed. How many of these, if any, may have received assistance in the first instance from the Canadian Government or corporations, there is probably no means of knowing. The juxtaposition of the two countries and the large numbers of recently arrived emigrants, who pass over the border from Canada into the United States, make it necessary, as will have been observed, to consider many questions of emigration from the common standpoint of the two countries. No material error results from this, both because the main features of emigration to the two countries coincide and because the emigration to Canada is so small in comparison with that to the United States that any variation in detail would produce an insignificant effect upon the general result. With Australasia the case is different. It will be remembered that Mr. Giffen's conclusions, as quoted in the first division of this report, which seem to be altogether justified by the statistics, are to the effect that emigration to Australasia "varies not quite in accordance with the emigration to the United States, and appears to be less exclusively determined by natural causes." I have sought to follow out this idea and to ascertain the cause of the difference noted, in a more particular way, as a method likely to disclose also the measure of the effect upon emigration to the United States of the special privileges offered by other governments—chiefly those of the Australasian colonies. By selecting from Mr. Giffen's tables of occupations from 1877 to 1885 the two classes of agriculturists therein distinguished, and comparing them for the United States, Canada, and Australasia, with the number of "general laborers," and with the total number of male adults emigrating to those countries for a series of years, a very fair idea may be had of the disturbing effect of the causes now under consideration.

The subjoined tables seem to show very plainly in what direction the effect is felt.

LXIV.—*Table showing the total number of male adult emigrants of British origin, and the numbers of several classes of such emigrants, who left the United Kingdom for the United States, British North America, and Australasia, respectively, in each of the nine years from* 1877 (*the first year in which nationalities and occupations were both distinguished*) *to* 1885, *and the average number per annum of each such class during that period.*

[U. S. is used to designate the United States; B. A., British North America; A., Australasia and all other places, "all other places" including the East Indies, British West Indies, Cape of Good Hope, and Natal, and Central and South America. The numbers for all these, however, are small compared with that for Australasia, under which general head it is convenient to classify them.]

Year.	Description.	U. S.	B. A.	A.
1877	Agricultural laborers, gardeners, carters, &c			
	Farmers and graziers ..			

LXIV.—*Table showing the total number of male adult emigrants, &c.*—Continued.

Year.	Description.	U. S.	B. A.	A.
1878	Agricultural laborers, gardeners, carters, &c	96	65	5,936
	Farmers and graziers	2,008	221	1,067
	Total agricultural class	2,104	286	7,003
	General laborers	8,969	1,828	2,913
	Total male adults	28,114	5,977	24,761
1879	Agricultural laborers, gardeners, carters, &c	144	32	3,923
	Farmers and graziers	3,186	256	1,940
	Total agricultural class	3,330	288	5,863
	General laborers	18,584	6,261	3,659
	Total male adults	48,552	10,666	28,583
1880	Agricultural laborers, gardeners, carters, &c	1,007	1,214	1,700
	Farmers and graziers	5,596	428	1,188
	Total agricultural class	6,603	1,642	2,888
	General laborers	42,865	5,085	2,114
	Total male adults	80,475	11,579	20,459
1881	Agricultural laborers, gardeners, carters, &c	336	169	2,168
	Farmers and graziers	3,186	274	714
	Total agricultural class	3,522	443	2,882
	General laborers	50,164	8,115	1,544
	Total male adults	86,239	13,244	23,185
1882	Agricultural laborers, gardeners, carters, &c	312	322	4,504
	Farmers and graziers	3,564	505	797
	Total agricultural class	3,876	827	5,301
	General laborers	52,103	15,413	2,216
	Total male adults	88,233	21,877	29,133
1883	Agricultural laborers, gardeners, carters, &c	190	495	7,409
	Farmers and graziers	4,363	433	1,462
	Total agricultural class	4,553	928	8,871
	General laborers	50,636	16,053	4,145
	Total male adults	88,995	21,534	40,465
1884	Agricultural laborers, gardeners, carters, &c	5,871	355	2,886
	Farmers and graziers	3,023	553	1,550
	Total agricultural class	8,894	908	4,536
	General laborers	33,002	11,086	3,226
	Total male adults	73,498	16,251	28,029
1885	Agricultural laborers, gardeners, carters, &c	5,450	351	3,286
	Farmers and graziers	3,518	285	1,420
	Total agricultural class	8,968	636	4,706
	General laborers	25,506	4,144	3,157
	Total male adults	67,465	10,616	26,140
AVERAGE.				
	Agricultural laborers, gardeners, carters, &c	1,496	335	3,992
	Farmers and graziers	3,318	344	1,228
	Total agricultural class	4,814	679	5,220
	General laborers	32,123	7,656	2,820
	Total male adults	64,929	12,875	26,992

From the foregoing table another may be constructed which will more completely define the difference between the emigration to North America and that to Australasia, and serve to measure the effect of the causes which produce that difference, as follows:

LXV.—*Table showing the proportions which the "agricultural laborers," the "farmers and graziers," the "total agricultural class," and the "general laborers," severally constitute of the total British male adult emigration to the United States, to British North America, and to Australasia and "other places," respectively, as averaged during the nine years from* 1877 *to* 1885.

Items.	Destination.		
	United States.	British North America.	Australasia and other places.
Total number of male adults	64,929	12,875	26,992
Agricultural laborers, &c	1,496	335	3,992
Per cent. of total	2.3	2.6	14.8
Farmers and graziers	3,318	344	1,228
Per cent. of total	5.1	2.7	4.5
Total agricultural class	4,814	679	5,220
Per cent. of total	7.4	5.3	19.3
General laborers	32,123	7,656	2,820
Per cent. of total	49.5	59.5	10.4

It thus appears that agricultural laborers constitute only a small portion of the male adult emigration to the United States and Canada, being but about 2½ per cent. of the total; whereas the emigration of the same class to Australasia reaches the large figure of nearly 15 per cent. But in the case of a better class, farmers and graziers, the proportions are quite different, being 5 per cent. for the United States, 2½ per cent. for Canada, and 4½ per cent. for Australasia. But if we combine all agriculturists under one head the proportions are 7 per cent. for the United States, 5 per cent. for Canada, and 19 per cent. for Australasia. The general laborers, on the other hand, show a very great preference for North America, constituting 60 per cent. of all the adult male emigration to Canada, and 50 per cent. of that to the United States, while they contribute but 10 per cent. of such emigration to Australasia.

These figures, then, show a very marked difference between the character of the emigration to the United States and that to Australasia, in certain important particulars. By turning to the circulars of the information office it will be seen that there is a more uniform demand in Australasia for farm laborers than for other classes of emigrants, and, as these get good wages there, ranging from $200 to $375 per annum, in addition to board and lodging, it would be reasonable to suppose that they would be largely induced to emigrate by assisted or "nominated" passages. The statistics are therefore in harmony with what might be expected.

During the years when free passages or assisted passages were most easily had it would be reasonable also to expect this class to contribute in an unusual degree to the volume of emigration to the countries offering them. I have not been able to procure reliable or complete information concerning such privileges during a series of years, but a comparison of these with the fluctuations in the emigration [illegible] would doubtless

CONCLUSION.

The information gathered under the foregoing seven titles of this report has been freely commented upon as the instructions of the Department seemed to justify or require. It will hardly have escaped notice, however, that there is a class of facts running through the whole, which point with such persistence in one direction, as to require a more serious and comprehensive consideration.

The question of the wages of laborers on the one hand, and of the amount of the necessaries and comforts of life which those wages can purchase, on the other, has long commanded the attention of economic writers, who seem by such a comparison to measure the relative advantages conferred by the laws of different nations upon the earners of wages within their respective domains. Without doubt, in the absence of a more comprehensive guide, these factors are of great value in the solution of the problem. There is no difficulty in bringing the currencies in which wages in different countries are paid to a common standard, and the efforts referred to then proceed upon the assumption that it only the cost of the articles for which the wages are expended can be ascertained, the other factor becomes determinate, and consequently the value of the wages determinable. This, however, by no means ends the difficulty, for the different conditions under which wage-earners work in different countries, difference in the number of hours of labor per week, difference in the machinery and the speeding of machinery, difference in the kind of housing, clothing, and food which supplies the greatest amount of comfort under the varying conditions of climate and other peculiarities of the places where their several lots are cast, so complicate the terms of this factor that the writers referred to are never able to write in the same language. The confusion is not less real because frequently it is not perceived that the language is not the same. On the contrary a much more perfect synonomy than is yet within reach is needed to reconcile the barbarous voices in which the laborers in widely separated countries describe what satisfies them in meat and drink, clothing and shelter, leisure and enjoyment. So it comes about that we are constantly multiplying oranges by apples, and never cease to quarrel over which kind of fruit rewards the effort.

It has been said that the ablest commissary-general who ever lived could not feed London for a day; yet the law of supply and demand, operating through the forces of individual self-interest, directed by no concert of action, but following the rut and concentrated in their final effect, delivers to the great city each day just what it needs of corn and meat and drink. By an unerring law of like kind the laborer who is able to avail himself of the opportunity to sell his labor in the market of the world, sells it where his wit, quickened by the first law of nature, tells him he can get most for it.

It seems to me that the decision of many hundreds of thousands of such people, as arrived at by considering their action through long periods of time, and by a comparison of their action in different periods of transient causes, is not only

It is proposed, therefore, to recapitulate what, we have seen, the emigrant laborer has been doing with himself, and to come to the conclusion that he has come to.

We have seen, in the first place, that there is a law of emigration which regulates the flow of emigrants—not in accordance with the state of trade in the countries whence the emigration proceeds, but in accordance with the state of trade and of the labor market in the countries to which it is destined. We have seen that the volume of emigration rises and falls, in response to the changes of condition just stated, with singular regularity; and that such rise and fall is coincident in the two countries, the United Kingdom and Germany, which chiefly supply emigration to the United States.

We have seen, in the second place, that it is the unskilled laborers who supply the chief portion of emigration; that the increasing pressure of population seeks to relieve itself by throwing off those of this class who are least able, within the limit of ability, to transport themselves, to resist the intense competition which results from such pressure; and that these, obeying the law of supply and demand, strike a balance for themselves between competition at home and that which the last resort of emigration subjects them to in the countries to which they might emigrate. We have seen, in the third place, that the United States, directly and indirectly through Canada, absorb nearly all of the unskilled laborers thrown off in the process just described; and that, while all grades of laborers are admitted to the United States duty free, only, or almost only, those take advantage of this exemption who are furthest removed by want of skill from ability to work in the industries which do not enjoy a like exemption.

We have seen, in the fourth place, that as soon as facility of transit between 1840 and 1860 opened the way to relief from pressure of population, the British and the Germans, whose population rapidly increases, instantly availed themselves of the opportunity of relief thus afforded, by increasing their ratios of emigration at a bound—the British by 500 per cent., the Germans by 600 per cent.

And we have seen, in the fifth place, that notwithstanding both the pressure of population and the facility of transit for relief of such pressure enormously increased in the United Kingdom and in Germany between 1860 and 1880, the ratio of emigration to the United States to population fell off in each country during that period; but that it fell off 23 per cent. in the United Kingdom and only 6 per cent. in Germany, notwithstanding the intensity of the pressure became greater in the former country than in the latter.

In a word, it appears that the United States have not presented the same attractions to the class that lives by wages since 1860 that they did before that time, and that the wage-earner has governed himself accordingly.

In harmony with these facts we have also seen that during the past forty years the wealth of the people of the United Kingdom has vastly increased, and that, in the process, that portion of the population which lives by trades and professions has gotten the lion's share of the increase; that of this class the employed have been especially benefited, and have

enjoyment of better food, housing, and clothing, and these as the result of higher wages; in better health and longer life; and, while lighter burdened by taxes than any other of the civilized nations, in gaining more leisure and securing a greater increase of the benefits of diffused education than the people of any other portion of the world; and, finally, that these changes, as a rule, have taken place in greater degree in the Manchester district—which, as the chief center of industrial development, has also to provide for the greatest increase of population—than in the rest of the Kingdom.

From all which it is to be concluded that the British workingman has not ignored the law of supply and demand, which governs all other such transactions, nor rebelled against his own interest in choosing the market for his labor. With such precision, indeed, has he seemed to adjust his movements to the fluctuations of the labor market as to suggest that he is guided by a price-current like his more learned brother in commerce. Perhaps the price-current exists, though it may not come to him in the tabulated form which serves the merchant so well.

Among Mr. Giffen's tables—which are a mine of wealth to the industrious searcher therein—is one which has been continued since 1848, showing the amount, so far as ascertained, of money remitted by settlers in the United States and Canada to their friends in this country. A comparison of these remittances during the period in which the British workingman has been showing an increasing aversion to the United States, with so much as the record admits of of the period which seemed so attractive to his emigration, would appear to supply such a price-current; and one which, it will be seen, singularly confirms the correctness of the ruder information that he must have acted upon.

Statement extracted from Mr. Giffen's Table VII and XII of the number of British subjects emigrating from the United Kingdom to the United States and British North America from 1853 (before which year the nationalities were not distinguished) to 1880; of the total amount remitted by settlers in those two countries to their friends in the United Kingdom in each year and in certain groups of years, and of the amount per capita in each such year and group of years—calculated in sterling and in its equivalent in United States gold coin.

Years.	Number of emigrants.	Amount remitted.		
		Total.	Per capita.	
			£. s. d.	
1853	222,731	£1,439,000	6 9 2	$31 43
1854	189,306	1,730,000	9 2 9	44 45
1855	102,349	837,000	8 10 7	41 50
1856	106,230	951,000	8 19 0	43 55
1857	122,319	593,165	4 17 0	23 59
1858	55,860	472,610	8 0 5	39 03
1859	59,565	520,019	8 14 7	42 47
1860	70,644	534,476	7 11 2	36 77
1853 to 1860	929,004	7,113,270	7 13 1	37 24
	42,113	374,061	8 17 7	42 20
1861	57,054	360,578	6 6 5	30 76
1862	140,193	383,286	2 14 7	13 27
	141,536	332,172	2 7 0	11 43
			2 12 5	17 62

Statement extracted from Mr. Giffen's Table VII and XII of the number of British subjects emigrating from the United Kingdom to the United States, &c.—Continued.

Years.	Number of emigrants.	Amount remitted.		
		Total.	Per capita.	
			£. s. d.	
1871	175,742	£702,488	4 8 0	$21 40
1872	186,164	749,664	4 0 7	19 60
1873	195,775	724,040	3 13 9	17 94
1874	134,502	485,566	3 12 2	17 56
1875	93,499	354,356	3 15 9	18 43
1876	63,889	449,641	7 0 10	34 26
1877	53,201	667,564	12 11 0	61 06
1878	65,346	784,067	11 19 10	58 34
1879	109,758	855,631	7 16 0	37 95
1880	187,472	1,403,341	7 9 9	36 43
1871 to 1880	1,265,348	7,176,358	5 13 5	27 59
1861 to 1880	2,528,284	12,046,399	4 15 3	24 17

It thus appears that from 1853, the first year of recorded nationalities, to 1860, inclusive, 929,004 emigrants to the United States and British North America sent back savings amounting to £7,113,270, or $37.24 per capita, and that from 1861 to 1880, inclusive, 2,528,284 emigrants sent back savings amounting to £12,046,399, or $24.17 per capita. An examination of the table more in detail would tend to heighten the contrast, especially when the difference in the value of money between the two periods is considered, and the further fact that whatever incompleteness exists in the records would be constantly diminishing as we approach the present time.

Taking all these things into consideration, the conclusion would seem to be irresistible that, while this country has been making such extraordinary progress in wealth and all that brings contentment in life, my own country has been standing still or retrograding. But upon turning to the statistics of the United States I find, on the contrary, that our wealth as a nation has enormously increased during the very period in which the British workingman has been showing his strange aversion to us.

Perhaps, however, the increase of wealth has not been undergoing diffusion, as here in the United Kingdom, and that it has gone into other hands than the like of his. His conduct and Mr. Giffen's tables would indicate that such is the fact.

As already remarked, such information has been collected in this report and such comments made upon it as the Department's instructions seemed to justify or require. I do not understand that I am called upon to attempt an explanation of the causes which have brought about a state of affairs so humiliating to our pride as that in this so-called aristocratic country wealth is measurably passing from the few to the many, while in our own country, during the last quarter of a century, a movement of quite a contrary kind seems to have been occurring. That, I assume, will be the care of those who give attention to economic questions with a view to affecting legislation, and who, following the spirit of our institutions, concern themselves [illegible]

man.

NOTE.—It may be observed that in the note at the foot of Table VII*a*, page — of this report, Mr. Giffen calls attention to the necessary incompleteness of these records. In a former report he also called attention to certain deficiencies that would render a conclusion drawn from a comparison between particular years misleading, as, for example, a certain amount which should have appeared in a given year was not returned until the next, &c.; but error from this source is avoided by the aggregation of numbers of years, and the measure of incompleteness, as already explained, cannot be variable except in an increasing tendency to greater fullness as the present time is approached. It may also be added that it would appear from this table that the emigrants have sent back something more than the amount which Mr. Wilson, of the Inman line, informs me they carry away, viz, £5 (about $25) on an average.

EXPLANATION OF MAP OF CONSULAR DISTRICT OF MANCHESTER.

Upon an English ordnance map circles were described about Manchester and the neighboring seats of United States consuls in radii of multiples of 4 miles. Where the lines of circles of equal radii met between Manchester and the other consulates the boundary line of this district was set there. The result was a map that conformed to the law defining the "place of shipment," and was almost conterminous with this consular district as it has existed in years of practice. The map now inclosed was constructed from the map just described by adding a little of the cotton portion of Yorkshire and yielding a little of the wool portion of Bradford, as in trade and practice would be required.

Again, Warrington is just within the Manchester boundary, but its population has not been included in the estimate of population for this, district, because Liverpool has long been the market town of Warrington, and there Warrington's invoices are certified.

NOTE ON THE LAW OF DIVORCE.

Previous to the year 1857 all matrimonial suits came before the ecclesiastical courts. But a divorce could only be obtained by means of a private act of Parliament, the expense and trouble of obtaining which made divorce a luxury of the opulent. By the act 20 and 21 Vict., c. 85, there was established a civil court, entitled the court of divorce and matrimonial causes, since absorbed into the probate, divorce, and admiralty division of the high court of justice. The act provides that a petition for dissolution of marriage may be lawfully presented to this court by the husband on the ground that his wife has been guilty of adultery; by the wife on the ground that her husband has been guilty of incestuous adultery, bigamy with adultery, rape, unnatural crime, or of adultery coupled either with such cruelty as would by itself entitle her to a judicial separation, or with desertion for two years or upwards. If the husband be petitioner, he must, unless specially excused by the court from so doing, make the alleged adulterer a co-respondent. The petitioner, whether husband or wife, must prove that there has been no collusion on his or her part. The husband may, in a petition for dissolution of marriage, claim damages from the adulterer, and the court has power to direct in what manner the damages given should be applied. It may also order the adulterer to pay the costs of the proceedings, in whole or in part. The court may order the husband to provide for the wife, by securing to her either a gross sum or an annual allowance or monthly or weekly payments, and may make his doing so a condition of its decree. It may also make such orders with respect to the custody of the children of the dissolved marriage, and with reference to any property secured by settlements made before or after such marriage, as it may think proper. A decree for a divorce is always in the first instance a decree *nisi*, and cannot be made absolute until three months have elapsed from the time of pronouncing it. During this period any person is at liberty, in the proper manner, to show cause why it should not be made absolute, or to give information to the Queen's proctor of any fact material to the case. The Queen's proctor thus informed, and having reason to suspect that the parties to the suit have been acting in collusion, may, under the direction of the attorney-general and by leave of the court, intervene in the suit. Either of them, may insist on having the contested matters of fact husband must always be assessed

MANCHESTER CONSULAR DISTRICT.

TUNSTALL.

REPORT OF CONSUL SCHOENHOF.

Emigration from the United Kingdom finds its high tide usually in the years of greatest business activity in the United States, and conversely its lowest ebb in years of business stagnation ruling in the States. Likewise is the back-current influenced, moderated, or intensified by the same causes, and the flow of immigrants to the mother country is heaviest in years of depression, when trade and manufacture is equally stagnant in Great Britain as well as in other countries the world over. This is evident from the following tables, covering sixteen years for emigration and ten years for immigration, the period for which separate lists of immigrants of British and Irish origin were kept.

A—*Balance of emigration of persons of British and Irish origin only, deducting recorded immigration from recorded emigration of such persons.*

[From the board of trade returns.]

Years.	Emigration.	Immigration.	Net emigration.	
			Numbers.	Population total population of United Kingdom.
				Per cent.
1870	202,511	.....	.....	0.65
1871	192,751	.....	.....	0.61
1872	210,494	.....	.....	0.66
1873	228,345	.....	.....	0.71
1874	197,272	.....	.....	0.61
1875	140,675	.....	.....	0.43
1876	*108,469	71,404	38,065	0.11
1877	*95,195	63,890	31,305	0.09
1878	*112,902	54,944	57,958	0.17
1879	†164,274	37,936	126,338	0.37
1880	†227,542	47,007	180,555	0.52
1881	†243,002	52,707	190,295	0.54
1882	†279,366	54,711	224,655	0.64
1883	†320,118	73,804	246,314	0.69
1884	*242,179	91,356	150,823	0.42
1885	*207,644	85,468	122,176	0.34

* Business decline. † Business activity.

That this centripetal and centrifugal force is mainly exercised by the United States is shown by the Tables B and C below. B giving the countries to which emigration was directed and C the countries from which immigrants returned during the same period of years to the mother country.

B.—*Number and percentage of persons of British and Irish origin only, who left the United Kingdom for the United States, British North America, Australasia, and all other places, in each year from* 1870 *to* 1885, *inclusive.*

Years.	United States.		British North America.		Australasia.		All other places.		Total.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
1870*	153,466	76	24,168	13	16,526	8	5,351	3	202,511
1871*	150,788	78	24,954	13	11,695	6	5,314	3	192,751
1872*	161,782	77	24,382	12	15,248	7	9,082	4	210,494
1873*	166,730	73	29,045	13	25,137	11	7,433	3	228,345
1874*	113,774	58	20,728	10	52,581	27	10,189	5	197,272
1875†	81,193	58	12,306	9	34,750	24	12,426	9	140,675
1876†	54,554	50	9,335	9	32,196	29	13,384	12	109,469
1877†	45,481	48	7,720	8	30,138	32	11,856	12	95,195
1878†	54,694	49	10,652	9	36,479	32	11,077	10	112,902
1879*	91,806	56	17,952	11	40,959	25	13,557	8	164,274
1880*	166,570	73	20,902	9	24,184	11	15,886	7	227,542
1881*	176,104	73	23,912	10	22,682	9	20,304	8	243,002
1882*	181,903	65	40,441	15	37,289	13	19,733	7	279,366
1883*	191,573	60	44,185	14	71,264	22	13,096	4	320,118
1884†	155,280	64	31,134	13	44,255	18	11,510	5	242,179
1885†	137,687	66	19,838	10	39,395	19	10,724	8	207,644

* Business activity. † Business decline.

C.—*Number of British and Irish immigrants from various countries landed in the United Kingdom in each year since* 1876, *the first year in which the nationality of the immigrants was recorded.*

Year.	From United States.	From British North America.	From Australasia.	From all other places.	Total.
1876	54,697	6,629	2,579	7,499	71,404
1877	44,878	5,687	4,637	8,688	63,890
1878	34,040	6,004	4,207	10,493	54,944
1879	20,048	3,497	4,967	9,424	37,936
1880	26,518	4,688	5,910	9,891	47,007
1881	29,781	5,761	5,877	11,288	52,707
1882	28,468	6,097	6,871	13,275	54,711
1883	46,703	7,021	6,844	13,236	73,804
1884	61,466	8,861	8,312	12,717	91,356
1885	57,604	9,321	7,946	10,597	85,468

Years of business activity in the United States, being the greatest percentage of emigrants to that country and the smallest number to Australasia, while in years of stagnation the reverse is noticeable. We observe the same fact in the emigration statistics of the anterior decade, from 1861 to 1870.

D.—*Number and percentage of British and Irish origin only who left the United Kingdom for the United States and Australia in each year from* 1861 *to* 1885.

Year.	United States.		Australasia.		Total.
	Number.	Per cent.	Number.	Per cent.	
1861 *	38,160	58	20,597	32	65,197
1862 *	48,726	50	38,828	40	97,763
1863 *	130,528	68	50,157	26	192,864
1864 *	130,165	70	40,073	21	187,081
1865 *	118,463	68	36,683	21	174,891
1866 *	131,840	77	23,682	14	170,053
1867 †	126,051	80	14,023	9	156,982
1868 †	108,490	78	12,332	9	138,187
1869 †	146,737	79	14,457	8	189,300
1870 †	153,466	76	16,526	8	202,511
1871 †	150,788	78	11,695	6	192,751
1872 †	161,782	77	15,248	7	210,494
1873 †	166,730	73	25,137	11	228,345
1874 †	113,774	58	52,581	27	197,272
1875 *	81,193	58	34,750	24	140,675
1876 *	54,554	50	32,196	29	109,469
1877 *	45,481	48	30,138	32	95,195
1878 *	54,694	49	36,479	32	112,902
1879 †	91,806	56	40,959	25	164,274
1880 †	166,570	73	24,184	11	227,542
1881 †	176,104	73	22,682	9	243,002
1882 †	181,903	65	37,289	13	279,366
1883 †	191,573	60	71,264	22	320,118
1884 *	155,280	64	44,255	18	242,179
1885 *	137,687	66	39,395	19	207,644

* Business decline. † Business activity.

Emigration to British North America seems to run parallel with that to the United States, as in fact many emigrants take the way to the States via Canada, or change their residence from time to time after having found a first place of residence there. Furthermore, business aspects in both countries are usually subject to the same fluctuating periodicity. The relative respective attractive force as from centers of emigration is therefore best illustrated in the emigration statistics of Australasia and America. In the years of war, from 1861 to 1865, of a total of 717,796 to all countries, America absorbed 466,042, or 65 per cent.; Australasia absorbed 186,338, or 26 per cent. In the eight succeeding years of active trade in the United States, from 1866 to 1873, in a total of 1,485,623, America absorbed 1,145,884, or 77 per cent., while Australasia absorbed 133,100, or 9 per cent. A yearly average of 37,267 from 1861 to 1865, against an average of 16,637, in the years of activity, 1866 to 1873, in the United States, looked for homes at the antipodes. That not extraneous causes, like gold fever, &c., influence this changing attractiveness of Australasia, but the business aspects of the United States, will be seen from the following transcript of succeeding business periods.

In the five years of declining and depressed trade in the United States, from 1874 to 1878, inclusive, in a total of 655,513 to all countries, America absorbed 349,696, or 53 per cent., and the tide to Australasia rose again to 186,144, or 28 per cent., a yearly average of 37,228.

In the three years of activity in the United States, from 1880 to 1882, inclusive, in a total of 749,910 to all countries America absorbed 524,577 or 70 per cent., while Australasia absorbed 84,155 or 11 per cent.; a yearly average for Australasia [illegible]

During [illegible]

OCCUPATION OF EMIGRANTS.

Full lists of emigration statistics published by the board of trade have been forwarded to the Department. I will only call attention to such general details which will illustrate from a general point of view what I have taken as a basis of inquiry in my immediate district, that of North Staffordshire, to wit, the small number of skilled artisans of British and Irish origin leaving the United Kingdom for foreign countries:

A.—*Occupations of adult passengers leaving the United Kingdom in* 1885.

Occupation.	United States.	British North America.	Australasia.	All other places.	Total.
MALES.					
Agriculture:					
Laborers, gardeners, &c	5,450	351	3,258	28	9,087
Farmers and graziers	3,518	285	1,219	201	5,223
Total	8,968	636	4,477	229	14,300
Trades and professions:					
Gentlemen, professional men, merchants, &c	3,736	1,998	1,649	2,058	9,441
Army and navy	4	15	28	327	374
Clerks and agents	1,436	54	1,122	237	2,849
Domestic servants	305	12	132	46	495
Shopkeepers, &c	480	25	602	158	1,265
Seamen	186	41	93	10	330
Laborers, general	25,506	4,144	3,017	140	32,807
Total	31,653	6,289	6,643	2,976	47,561
Mechanics, &c.:					
Bakers	94	2	324	10	430
Blacksmiths	79	5	158	8	250
Boot and shoe makers	80	3	162	34	279
Braziers, &c	17	----	48	3	68
Brick-makers, potters	16	----	29	----	45
Brick-layers, &c	671	17	390	20	1,098
Builders	34	----	83	2	119
Butchers, &c	111	1	82	4	198
Cabinet-makers	40	----	70	----	110
Carpenters	526	56	740	52	1,374
Clock-makers, &c	48	----	27	16	91
Coach-makers, &c	6	----	33	----	39
Coopers	8	----	12	----	20
Engineers	228	9	388	191	816
Founders, &c	52	----	62	2	116
Mechanics	3,731	123	528	91	4,473
Millers, &c	40	2	37	3	82
Miners	2,257	1	860	207	3,325
Painters	314	2	285	1	602
Printers	58	2	65	14	139
Saddlers	18	1	21	4	44
Sawyers	15	----	19	----	34
Shipwrights	10	----	18	----	28
Smiths	97	1	29	5	132
Spinners, &c	198	2	30	1	231
Tailors	123	4	137	54	318
Tanners, &c	15	----	12	1	28
Turners	21	----	12	----	33
Wheelwrights	12	----	38	----	50
Other trades	622	6	466	205	1,299
Total	9,541	237	5,165	928	15,871
Total	17,303	3,454	3,841	1,881	26,479

Taking a year of general comparative prosperity, 1881, and highest emigration rate, we find no material difference in the relative grading of occupations of emigrants.

B.—*Occupations and general destination of adult passengers in* 1881.

Occupations.	United States.	British North America.	Australasia.	All other places.	Total.
MALES.					
Agriculture:					
Laborers, gardeners, &c	336	169	2,150	18	2,673
Farmers, graziers, &c	3,186	274	431	283	4,174
Total	3,522	443	2,581	301	6,847
Trades and professions:					
Gentlemen, professional men, merchants, &c	6,415	1,284	1,132	2,817	11,648
Army and navy	26	91	15	497	629
Clerks, agents, &c	847	50	342	231	1,470
Domestic servants	119	19	23	45	206
Shopkeepers, &c	360	17	279	656	1,312
Seamen	105	38	34	13	190
Laborers, general	50,164	8,115	827	717	59,823
Total	58,036	9,614	2,652	4,976	75,278
Mechanics, &c.:					
Bakers	96	2	38	11	147
Blacksmiths	78	7	48	23	156
Boot and shoe makers	94	3	51	10	158
Braziers, &c	37	.....	9	.....	46
Brick-makers, potters	33	.....	18	1	52
Bricklayers, &c	761	16	153	187	1,117
Builders	31	.....	18	14	63
Butchers	103	.....	35	9	147
Cabinet-makers	37	4	23	4	68
Carpenters	1,372	31	273	116	1,792
Clock-makers	26	.....	17	11	54
Coach-makers	7	.....	8	2	17
Coopers	31	.....	12	1	44
Engineers	349	6	126	175	656
Locksmiths	8	.....	2	.....	10
Mechanics	4,872	271	141	1,036	6,320
Millers	22	.....	17	2	41
Miners	12	.....	5	.....	17
Painters	199	5	50	10	264
Printers	53	.....	27	9	89
Saddlers	22	2	14	6	44
Sawyers	21	1	10	.....	32
Shipwrights	128	8	5	6	147
Smiths	189	.....	11	33	233
Spinners, &c	472	6	21	2	501
Tailors	179	3	46	49	277
Tanners	8	.....	7	.....	15
Turners	16	.....	5	2	23
Wheelwrights	14	.....	19	2	35
Other trades	2,220	730	429	230	3,609
Total	11,490	1,095	1,638	1,951	16,174
Occupations not stated	9,682	2,060	4,242	4,512	20,496
FEMALES.					
Domestic servants	14,901	1,200	2,167	244	18,512
Gentlewomen, &c	37	27	29	50	143
Milliners, &c	153	6	73	3	235
Shopwomen	2	.....	5	.....	7
Other trades	362	17	50	9	438
Not stated	42,240	4,569	4,925	5,091	56,825
Grand total					

Not to weary with too lengthy a repetition of the same kind of statistical tables, I bring a summary for the last ten years of classified occupations, as in Tables A and B of Part II:

C.—*Occupations of adult passengers leaving the United Kingdom during the last ten years, from* 1876 *to* 1885, *inclusive.*

Occupations.	United States.	British North America.	Australasia.	All other countries.	Total.
	No.	*No.*	*No.*	*No.*	*No.*
MALES.					
Agriculture:					
Laborers, gardeners, &c	15,534	3,143	38,967	183	55,827
Farmers, graziers, &c	32,242	3,629	9,660	2,106	47,637
Total	45,776	6,772	48,627	2,289	103,464
Trades and professions:					
Gentlemen, professional men, merchants, &c	53,676	19,988	14,878	24,744	113,286
Army and navy	248	644	335	3,681	5,490
Clerks and agents	8,082	390	5,921	580	18,049
Domestic servants	1,283	193	617	3,656	2,522
Shop-keepers, &c	3,001	150	4,520	429	10,028
Seamen	1,250	186	477	2,357	2,088
Laborers, general	301,640	71,201	26,126	175	403,924
				4,957	
Total	369,180	92,754	52,874	40,579	555,387
Mechanics, &c:					
Blacksmiths, &c	655	78	1,374	111	2,218
Bakers, &c	914	41	1,297	53	2,305
Boot and shoe makers	753	31	1,218	130	2,132
Braziers, &c	218	8	493	12	731
Brick-makers and potters	219	6	332	7	564
Brick-layers, &c	6,236	313	4,402	1,348	12,299
Builders	259	25	446	67	797
Butchers	1,088	38	993	48	2,167
Cabinet-makers	236	22	602	20	880
Carpenters	9,833	500	7,745	635	18,763
Clock-makers, &c	208	5	285	57	555
Coach-makers, &c	70	5	260	23	358
Coopers	337	8	215	10	570
Engineers	351	26	779	327	7,681
Founders	2,170	97	2,211	1,720	116
Mechanics	52		62	2	52,726
Locksmiths	38,694	6,428	3,120	4,484	99
Millers	49		46	4	582
Millwrights	220	23	318	22	108
Miners	37	3	64	4	29,925
Painters	23,030	107	4,891	1,897	4,683
Printers	1,880	88	2,636	79	1,143
Saddlers, &c	477	30	563	73	478
Sawyers	125	8	325	20	349
Shipwrights, &c	73	5	262	9	396
Smiths	178	27	162	29	2,112
Spinners, &c	1,569	26	378	139	2,768
Tailors	2,437	60	250	21	2,951
Tanners, &c	1,555	56	1,104	236	281
Turners	115	6	157	3	349
Wheelwrights	156	4	181	8	474
Other trades	86	4	367	17	25,662
	11,654	2,067	8,245	3,696	
Total	105,934	10,144	45,783	15,361	177,222
	102,447	12,103	37,955	25,236	177,741
Occupations not stated					
					159,968
FEMALES.		9,140	40,559	3,671	2,815
				661	3,835

Though it must be admitted that a percentage of skilled artisans may be contained in "occupations not stated," yet it is presumable that those withholding their occupations are those belonging to that class of passengers who are classified as "cabin passengers," and among whom the artisan classes, as a rule, find no perceptible representation. In 1885 there were 51,428 cabin passengers. In 1881 there were 54,270 cabin passengers, and in the ten years, 1876–'85, there were 492,557, which, deducting gentlemen, professional men, merchants, shop-keepers, and clerks already enumerated, would pretty fairly absorb all "occupations not stated," so that the classification of artisans and mechanics would not be very materially altered by the residuum remaining over from a closer scrutiny of "occupation not stated." It is apparent from this that the manufacturing branches of the industries of the United States do not receive a very heavy contingent from the skilled labor of Great Britain.

It would be premature to enter into generalizations on this subject. It may be said, however, that the English workingman is a stay-at-home body. He loves his surroundings, habits, customs, family ties, and the charm of the many festive occasions, which weave a garland of flowers into his frugal and toilsome existence, makes him prefer the spot where he has been born and reared to many a land of promise from which he sees others not unfrequently return after a trial, glad to be back again among the old associates of their youth. Sentiment may have a great share in this phenomenon. But sentiment is one of the most powerful motors of human actions, wielding no small influence upon social dynamics, and is certainly able to explain many of the intricacies of the emigration problem.

WAGES.

Day wages, measured by the standard of the United States, are smaller in comparison measured by that of other countries relatively high. Considering, however, the more evenly distributed work and earnings, coupled with the low cost of commodities and living expenses, a frugal, sober workman, assisted by a wife of like inclination, can eke out a fairly satisfactory existence. Statistics of wages exist to a large extent, but seldom have they been stated by workingmen themselves. For the first time to my knowledge has a very extensive list been published in answers from secretaries of trade societies in the United Kingdom to questions formulated and sent out by the royal commission on trade depression. These answers have been published lately by this commission in appendix to Part II of their report. I give a tabulated list of the most important ones. There being several hundred, and many being repetitions in the same trade, it would uselessly fill space and time to reproduce them all:

Wages and working-time of British artisans from answers from associations representing the interests of the working classes.

Place and name of trade society.	Wages paid per hour.	Equal to week.	Hours worked.	Weekly wages.	Twenty years ago.	Years of apprenticeship.	Remarks.
	Cents.						
Amalgamated Society of Engineers, Belfast.	.....	.....	54	$6 81–8 75	.....	5–7	
Bicycle makers, Coventry:							
Skilled	18–24	$9 85–13 14	54	.....	.....	7	In busy months from 60 to 80 hours.
Unskilled	6–12	3 16– 6 56	.....	.....	.....	.....	
Females	4	2 19	.....	.....	.....	.....	Unskilled, $3.65.
Machine, making, Dundee.	.....	.....	54	6 08	.....	.....	
Engineering trade:							
Glasgow	.....	.....	54	6 32	.....	.....	
Hartlepool	14	7 66	54	.....	.....	3–5	Inclusive overtime 63 hours.
London	18	9 85	54	.....	.....	7	
Nottingham	.....	.....	.....	8 27	.....	5–7	Great activity in lace trade reported.
Oldham	.....	.....	54	8 02	.....	5–7	
Ulverstone	.....	.....	54	7 54	$6 32	.....	57½ hours in 1865.
Wednesbury	.....	.....	54	7 29	6 81	6–7	
Boiler-makers:							
Hull	13½	7 38	54	.....	.....	.....	
Liverpool	.....	.....	54	6 81–8 27	.....	.....	Unskilled, $4.86 to $5.83. Average.
Stockton on Lees	.....	.....	54	8 27	.....	.....	
Iron-founders:						7	
Accrington	.....	.....	54	7 78–8 78	.....	7	Apprentice wages commence at 97 cents and rise yearly 24 cents per week.
Barnsley	15	8 20	54	.....	.....		
Birkenhead	.....	.....	54	8 27	.....	.....	
Chester	15	8 20	54	.....	.....	7	
Iron-molding:							
Ipswich	12½	6 83	54	.....	.....	.....	
London	.....	.....	54	9 24	.....	7	
Swansea	13½	7 38	54	7 29	5 10	.....	19 foundries work 54 and 4 foundries work 60 hours.
Wolverton	12½	6 83	54	.....	.....	.....	
Dundee	.....	.....	54	7 15–7 29	.....	7	Some work 59 hours at $5.83 to $6.32.
Shipwrights:						5	60 hours in 1865.
Glasgow	13½	7 38	54	.....	8 75	7	
Bristol	11	6 01	54	.....	.....		
Blacksmiths:				5 35–6 56	.....	.....	
Ardrossan	.....	.....	.....	3 65–8 02	.....	5	
Edinburgh	12	6 56	54	.....	.....	7	
Leeds	12	6 56	54	.....	.....	4–5	
Nottingham	12	6 56	54	.....	.....		60 hours in 1865; trimmers, $4.86 to $7.15; painters, $4.86 to $7.15; body-makers, $6.32 to 7.15; carriage-makers, $5.59 to $6.57; wheel-makers, $4.86 to $7.15; smiths, $5.85 to $7.54.
Coach-builders:				7 29	.....	6–7	
Cheltenham	.....	.....	58	6 32	.....	7	
Dublin	.....	.....	57	4 86–7 54	.....	.....	
Dundee	.....	.....	.....	4 86–7 29	.....	.....	
Taunton	.....	.....	54	5 83–7 78	.....	7	
Railroad-coach builders, Wolverton.	.....	5 35–7 29	54	.....	.....	5	
Pattern-makers, Glasgow	.....	.....	54	7 29–10 22	.....	7	Majority piece-work.

Wages and working-time of British artisans, &c.—Continued.

Place and name of trade society.	Wages paid per hour.	Equal to week.	Hours worked.	Weekly wages.	Twenty years ago.	Years of apprenticeship.	Remarks.
Carpenters, &c.:	*Cents.*						
Armagh	13	$6 50	60	$6 81			
Buxton	14	7 02	49½				
	14½	7 27					
Chester	15	8 20				5–6	
Dundee	14	7 23	51				
Rugby	14	8 01	56½				
Manchester	16	8 83	54½		$5 47		
Decorative painters, Swansea.	13½	7 38	54½				From November to February, only 47 hours.
Plumbers, Liverpool	16	8 91	55				
Gilders, London	16–17	$9 16–9 73	56½				From November to March, 47 hours.
Cotton-spinners, Oldham.				3 89		7	
Boot and shoe makers, Aberdare.				$1 82–2 31			Creelers, piecers.
				3 65–7 29			
Letter-press printing:							
Dublin	14	8 02	56½				
Leeds			54	6 81–7 78			Piecework 13 to 17 cts. per 1,000; piecework, 13½ to 21½ cents per 1,000 composition; 6 cents per hour for extra work.
London			54	8 75			
Salisbury			56–55	5 10–7 29		7	
Aylesbury	12	6 56					
Middleboro'				7 29	4 86		
Southport			51	8 27	6 81		
Bookbinding, London							16 cents per 1,000 nonpariel.
Mining, Tipton	*81–89		54	7 78	7 29	7	60 hours in 1865.
Bakers, Glasgow					$1 09–1 22		Per day.
Dressmakers, &c., London.					4 86–5 35		
				1 46–4 38	1 46–2 92		

*Per day.

The wages marked down in the first column are paid by the hour; those in the fourth column by the week. The proportion of hour pay is very large; in fact, the by far greatest proportion of the two to three hundred trade societies reporting to the commission are paid by the hour. In most other trades, wherever practicable, piecework is the rule. So far as compensation is concerned, the eight-hour question cannot well be raised, and the demand for goods, more than any other consideration, regulates the working time, which, however, seldom exceeds fifty-four hours for the full week. Taking the year through, however, many deductions come off from this time, and I doubt whether the average for the year round, taking full and dull weeks and play weeks, reaches eight hours for each of the three hundred working days of the year. The often-raised question whether ten hours' work, or rather the work of a nation, can be done in eight hours' time, has therefore found its practical solution in the effective work of Great Britain. Many of the vexed questions which agitate our bod- and the

bring higher prices. I have, even now, in this time of depression, found many regulations in force engrafted by trade societies, which would probably be resented elsewhere as an undue interference, namely, in the glass trade, which deserves mention here. The blowers work in shifts of six hours; one man, however, is not allowed to do more than eight shifts a week and has a certain amount of work allotted to him for his shift, and if he finishes this in a shorter time he cannot take up new work but has to wait until his turn comes round again. All such regulations are enforced by the trade unions and have, so far as I can learn, worked without much jar for years without having disrupted the relative industries, or caused capital to remove its chattels to Utopia, where dividends and profits are guaranteed against the disturbing influences of agitation and varying trade aspects.

CONDITIONS IN THE POTTERIES.

The trade of this district—North Staffordshire—is principally pottery, and the conditions, so far as illustrated by working time and wages, have been fully set down in my report on pottery, printed in No. 63 of consular reports. I have since collected some additional details which explain more fully the general conditions of time and earnings. I give here the estimate of a manufacturer of varied and long experience concerning the annual wages of a hollow-ware presser in a year of trade depression, when not fully employed, and use his own words, fully illustrating the meaning of what has been said above:

A fair average hollow-ware presser's earnings might be placed at $7.78 (see page 75 of No. 63 of consular reports) for a week of six days, but taking the present time it would be found that the four middle days of the week would fairly represent the time during which he would be employed, so that this $7.78 would from this reason be reduced to, say $5.83. This is higher than four days at $1.30 a day, the daily average of $7.78 per week, but arises from the fact that the two remaining days, that is Saturday and Monday, are scarcely ever full working days. Out of this time we must also take three weeks as representing holidays and loss of time from occasional breakdowns, &c., and then the sum would stand as follows: $5.83 × 49 = $285.47 per annum, or $5.49 per week.

Now supposing that this should represent the earnings of a family consisting of father, mother, and three children, and dependent only on the earnings of the head of the house, then the income would be expended in the following manner:

Item.	Cost.	Item.	Cost.
Rent	$0 85	Coffee and sugar	$0 16
Taxes	16	Beef, 4 pounds, at 16 cents	64
Fuel	32	Butter, 1 pound	30
Oil and candles	8	Bacon	12
Soap	12	Cheese	12
Sick club	18	Milk, 7 pints	21
School fees	16	Pudding for Sunday	12
Trifles	8	Clothing and bedding	49
Medical attendance	6	Shoes	18
Newspapers, &c	24	Vegetables	12
Bread	49	Total	*5 32
Tea	12		

*Which leaves a balance of 17 cents.

for the wife's income, who fre-

prices are taken, and these are unprecedentedly low; so in that case, if a little was taken from some of the charges the balance would be greater, and this would be to some extent obligatory, as present earnings would be below the given average. It would therefore follow that increased prices, which would accompany a brisker trade, would be met by a higher average amount of employment. A family of this kind would be looked upon as a respectable one. You will see that in this table no allowance is made for either beer or tobacco, and the wife is supposed to be adding nothing to the family income, but wholly occupied with domestic duties. This is what we should invariably find in such a family. It is further evident that this standard of living is only maintained by the most unrelaxing and systematic economy.

Should beer and tobacco be added to these expenses it would be done mainly by sacrificing to a large extent the expenses set down for clothing, milk, pudding, and a little more would have to be pinched from the items, beef, bacon, cheese. As the family grew up and the children began to work this income would be increased by different amounts, as time went on, varying from $1.22 to $3.65 per week. But they would not be able to appropriate the whole of this increase to purposes outside this table of expenses, as the children would cost more both to feed and to clothe. Still, with a family of this description, it is most probable that saving would now begin. This would as a rule take the form of, at first, one share of $2.43 per month in a building society, which in this neighborhood is decidedly the most popular form of investment among the thrifty working classes, and as this increased income advanced from the $1.22 level to the $3.65 level another share might be taken up, thus opening a little prospect in old age.

Taking, however, a firm finding full employment as a rule for its work people, the average would be considerably higher, as may be seen from the information I have received on this item from one of the leading houses in Burslem:

I have gone through our wage-book this morning, and find that our sixteen hollow-ware pressers average per week, from January 4 to Saturday last (the 17th of July), $6.88 per man per week. I also find they only commenced full work on the 3d of April, but that during the last six weeks a little overtime has been made.

In answer to a request to state to me the actual payment made to these sixteen hollow-ware pressers in wages for one week of full employment, within the period above named, I received the following reply:

I find that the largest weekly payment to our sixteen pressers averaged $8.65 each man, while individual men have earned as much as $10.95.

This instance would alone show the impossibility of estimating the cost of production by the weekly wages earned. Here we have in one district, in the same industry and the same occupation even, the averages of weekly earnings varying from $5.35 to $8.65, while the individual differences would be greater yet. The labor price paid by the piece, however, is for like work in the different factories the same.

ENGLISH AND AMERICAN CONDITIONS.

The low cost of living possible now under the rule of lowest prices of commodities ruling since a considerable time backward, coupled with fair employment the year round, makes life comparatively easy to the artisan classes, and they do not find cause for emigration unless opportunities of extraordinary attraction are offered by foreign countries. The small number of potters quoted in the report leaving the United Kingdom for the United States and foreign countries speaks for itself. My personal inquiries among the people and authorities have not given me an intimation that any greater number are leaving [illegible] in the figures quoted.

hollow-ware presser at East Liverpool, Ohio, and now returned to his native place, gives the following as his comparative earnings, both here and in America, and the mode of spending his income:

Earnings of a hollow-ware presser in East Liverpool, taking his average working at about forty-five weeks, deducting seven weeks for the inclemency and severity of the winter months, also the general stagnation of the potting industry throughout the Eastern and Western States periodically, $12.50 per week being good wages for a steady and competent presser; 45 weeks=$562.50.

Earnings of a hollow-ware presser in the potteries in Staffordshire, working about forty-eight weeks in the year, getting on an average $7.29 per week; 48 weeks=$349.92.

Taking a man and wife with three children making a family of five persons.

East Liverpool.		Staffordshire.	
Items.	Cost.	Items.	Cost.
Bread, per day	$0 16	Bread, 4-pound loaf per day	$0 08
Milk, per day, 1 quart	06	Milk, 1 pint per day	03
Meat, per day, 2 pounds, at 12 cents	24	Meat, 1 pound (English)	20
Per week	3 22		2 17
Sugar, 4 pounds, at 8 cents	32	Per week	20
Tea, ½ pound, at 60 cents	30	Sugar, 4 pounds, at 5 cents	30
Coffee, ½ pound, at 25 cents	12½	Tea, ½ pound, at 60 cents	05
Salt, 1 bag of 2 pounds	05	Coffee, 2 ounces, at 40 cents	01
Potatoes, 1½ peck, at 30 cents	45	Salt	16
Fresh eggs, 1 dozen	18	Potatoes, 1 peck	12
Bacon, home cured, 2 pounds, at 15 cents	30	Bacon, 1 pound	09
Cheese, 1 pound	20	Cheese, 1 pound, at 9 to 12 cents	36
Butter, 2 pounds, at 25 cents	50	Butter, 1 pound	06
Sago, ½ pound, at 15 cents	07½	Sago and rice, 1 pound	03
Scotch oatmeal, 1 pound	10	Scotch oatmeal, ½ pound, at 6 cents	01
Spices	05	Spices	
Total provisions	5 99		3 56
Rent	1 50	Total provisions	78
Boots and clothing	1 50	Rent	1 20
Fuel, blacking, beer, tobacco, and other incidentals	1 00	Boots and clothing	
		Fuel, blacking, beer, tobacco, and other incidentals	72
	9 99	Rates and taxes	22
			6 48
Expenses per year of 52 weeks	519 48	Expenses per year of 52 weeks	336 96
Savings	43 02	Savings	12 96
Earnings	562 50	Earnings	339 92

The difference in articles and quantities consumed in favor of an American potter consists in the following, per week: 6 pounds of meat, one-fourth pound of coffee, 1 pound of bacon, one-half peck of potatoes, 1 dozen fresh eggs, 1 pound of butter, and a few other unimportant items which, however, could be easily supplied if needed without much additional outlay. What the English potter or workman in general has to forego is the more liberal consumption of meat and albuminous diet, which gives the American workingman the greater stamina and working power, for which he is so justly celebrated. The meat price is quoted higher than in America. This is due to a certain feigned objection—gradually working off, however—to imported meats. The men whom I [illegible] only use the best English meat, and the "poorer

to 16 cents per pound. If cheaper cuts are bought a more liberal meat diet can easily be indulged in. Still I hear it frequently mentioned by people who have an insight into the living methods of the working classes that if they have the money they buy only the best pieces.

Corroborating this, I have been told lately by one of the largest employers of labor in Lancashire that the butchers in his town raised the price of prime cuts lately a penny a pound, saying that the demand for best cuts by the working classes was so great that they find it difficult to dispose of inferior pieces. Bread and potatoes form a great part of the diet, and 1 peck of potatoes a week is undoubtedly under the mark. But it is important to notice that potatoes and especially bread is so much cheaper here than in the United States. Good wheaten bread is sold at 2 cents a pound out of the very flour brought from America from which the bread is made, for which an American has to pay nearly double the price. The weight and measure is everywhere guaranteed and the sale of adulterated articles strictly prohibited unless sold as what they really are. Only the other day a dealer was heavily fined for selling ground coffee mixed with chicory, as pure coffee, although he pleaded ignorance and that the fault lay with the wholesale dealer who supplied him with the article as pure and unadulterated coffee. Nor is the difference in the price of goods bought in small quantities so very great. In America this takes quite a good proportion out of the workingman's earnings. Among the prices given to me by one of my workingwomen in New York as what she pays for her provisions, I find 5 cents a quart for potatoes, which is 100 per cent. over the barrel price. All measures are gauged. The full pint of the best ale is sold to outdoor customers at 6 cents and in the bar-room at 8 cents, and the half pint, containing twice as much as our American beer glasses (half foam and thick glass bottoms), at 4 cents. In Germany a glass of beer containing nearly twice as much as an American glass is sold for 10 pfennige, or 2½ cents.

The dollar or two dollars of the workingman must supply him with all the means of subsistence for himself and family, and the sick fund and reserve fund for old age or incapacity. Every 5 or 10 cent piece saved to him a day from leakages created by private or public taxgatherers mean to him either so much less comfort or so much more care and anxiety. It is therefore one of the most commendable endeavors of the British Government to bestow its care upon the enhancement of the purchasing power of the penny.

So far as clothing and dry goods in general are concerned I find that cotton goods are fully as cheap in the United States as here. Shirtings and sheetings if anything are superior in quality for the same money with us, so far as I can judge from the articles exposed for sale in the retail stores. Articles of underwear for women, made of muslin, are far superior in workmanship and finish and cheaper in price in the United States, counting the difference in the price of imported materials. Nor can I find that men's shirts, when chiefly of cotton, are any cheaper here. Of boots and shoes, if factory made, the same may be said, though the leather of the better class of ready-made goods seems to be superior here, that is, better tanned. Custom-made boots and shoes, however, are considerably below American prices. A very good pair of gentlemen's laced gaiters, made to order, can be had at $3.89 and [illegible] $7.29, the difference in [illegible]

Goods made of wool, linen, and silk are considerably lower than our prices. A good suit of the best English tweed, worsted, or melton can be had, made to order, at from $15 to $20. A spring overcoat of excellent quality, with best silk sleeve-lining, I had measured for $18.25. The same articles can be had for much less if made of inferior goods or by cheaper tailors. The difference in the prices of ready-made things, as said above, is not so marked, however, and this is mainly due to the comparatively low price and superiority of tailor-made garments, on account of which they are preferred by the working classes even, and have not given the impetus to the wholesale manufacture of clothing which is maintained and supported in the United States, principally by the high cost of merchant tailor made articles of clothing. In workmanship and finish I find corresponding articles of the wholesale process of manufacture superior in the United States. This is true of clothing as well as of collars, cuffs, and like articles. Though not better in quality, yet the latter seem to have a more merchantable appearance to the eye. In many articles, such as ladies' underwear of muslin and linen, if freed from duties on embroideries and other imported materials, I have no doubt a good export trade could be established, in consequence of the much greater perfection in workmanship and finish than what I find here.

HOUSING.

Much has been said in the United States at different times, and repeated lately there, in quarters where full and reliable information on the subject might be justly expected, of the degrading condition and the promiscuous herding, without regard to sex, age, or relationship of the working potters in this district, of eight and even sixteen persons living in one room being the rule, &c., the papers brought reports as representing the conditions here. The statement naturally found its way into the papers here, and I have made diligent inquiry, therefore, from the vital statistics of the district with a view of getting at the true facts. I find a population of 200,758 of the pottery district is supplied with 37,803 houses, which gives one house to every 5.3 inhabitants.

Dividing the total among each of the towns comprising the potteries of North Staffordshire we find in each one the same ratio maintained.

Number of houses and inhabitants and number of inhabitants to each inhabited house in each of the towns of the pottery district of North Staffordshire.

Name of town.	Houses.	Inhabitants.	Inhabitants to each house.
Tunstall	5,429	29,673	5.46
Burslem	5,358	28,248	5.27
Hanley	10,176	54,274	5.33
Stoke	3,205	17,274	5.39
Fenton	2,682	14,136	5.27
Longton	3,498	18,615	5.30
Newcastle	4,092	20,996	5.13
Wolstanton	3,363	17,542	5.21

and statements such as those mentioned above, it must be clear from the figures, have no basis of facts whatever to stand upon. I have not been able to learn of many cases where more than one family inhabit one house. The workingmen's houses are all built on the cottage system, and mostly have one large front room immediately opening into the street, which serves as sitting-room or parlor, a kitchen in the rear, one large bedroom upstairs, taking the whole fronting on the street, with two windows, and in the larger houses two bedrooms in the rear. The outhouse is always in the yard. There are few houses so poor that have no flower-pots in the windows, and many have a flower-bed either in the yard, or, where practicable, a little plot in the front. The people show a great interest in flowers. The ground floors are paved with bricks; in the newer houses with tiles; some of the larger ones have boards. The sleeping-rooms are all floored with boards. Matting or carpet of some kind usually covers the floors of the lower rooms. As the life is an outdoor life, and the doors are open in summer time to the view of any passing visitor, it is easy to gain an insight into the home-life and habits of the working classes. The scrubbing and cleaning that goes on on a Saturday, and the general appearance itself of the rooms does give a very favorable impression as to cleanliness. Of course, there are exceptions to that to be found, especially in the poorer wards, but these exceptions make the generally favorable appearance only the more pronounced.

MARRIAGES AND BIRTHS.

Marriages here are contracted early in life. The many young couples one meets in the streets with a baby carriage and frequently one or two little pedestrians trotting alongside demonstrates this fact fully to the eye, as also the innumerable groups of little ones playing in the streets whom one has to circumnavigate in the walks on a sunny afternoon in the neighboring towns and villages. Thus the loss sustained by emigration is more than supplied by the new crop of Britons coming up with unfailing regularity. To get at the facts of the average marriage age, I tried to obtain from the registrars of the district the statistics covering the case. I have succeeded in two cases, which, however, corroborating each other, give a satisfactory review of the whole situation.

The registrar for Burslem, Tunstall, and Wolstanton, writes:

I regret that it is not in my power to furnish you with any satisfactory statistics as to marriages for this district. I only attend and register at non-conformist places of worship and civil marriages at superintendent's office, and I have also a colleague who has perhaps about 10 per cent. more marriages in the year than I have, so that you can only get an approximate estimate. Subjoined is a brief summary of my marriages for 1884 and 1885, and I dare say it is a fair sample of the ages at which marriages are contracted in the district:

Year.	Under 20 years.	Over 20 and under 25.	Over 25 years.	Total.	Couples.
1884	9	78	57	144	72
1885	14	74	46	134	67

For the Stoke district the following [illegible]
letter);

during the year 1885 was one hundred and twenty-seven, classified according to the ages mentioned in your letter, as follows:

Age.	Males.	Females.
Under the age of 20	1	9
Over 20 and under 25	64	61
Over 25 years of age	62	54

These marriages are those only which are attended and registered by registrars of marriages, and do not include those which are celebrated in the English Church or amongst the Jews, the former of which are registered by the officiating ministers and the latter by a registering officer of the Jews.

The greater portion of marriages are celebrated under twenty-five years of age.

The birth rate per 1,000 inhabitants and of illegitimacy per 1,000 births is as follows in the different countries of Europe, according to the best statistical authorities:

Number of births to 1,000 *inhabitants and number of illegitimate children in* 1,000 *births in different parts of Europe.*

Countries.	Births to 1,000 inhabitants.	Illegitimates to 1,000 births.	Countries.	Births to 1,000 inhabitants.	Illegitimates to 1,000 births.
England	35.80	45	Holland	36.2	35
Scotland	35.20	89	Belgium	32.2	70
Ireland	26.50	23	Denmark	31.2	112
France	25.6	76	Sweden	30.3	102
Germany	39.8	84	Italy	36.9	68
Austria	39.9	129	Spain	37.2	55
Hungary	43.0	.....			

The statistics of my immediate district show the following data:

Number of births and illegitimate births, and illegitimate births in 1,000 *births, in the pottery district in the year* 1885.

STOKE-UPON-TRENT REGISTRATION DISTRICT.

Towns.	Births.	Legitimate.	Illegitimate.	Illegitimates in 1,000 births.
Hanley	1,077	1,034	43	40
Shelton	1,081	1,030	51	47
Stoke	679	620	59	86
Fenton	618	587	31	50
Longton	864	777	87	100
Total	4,319	4,048	271	63

WOLSTANTON REGISTRATION DISTRICT, 1884.

				44

CHARITABLE INSTITUTIONS.

The charitable institutions of the district are in excellent condition. I have visited the North Staffordshire Infirmary, erected and supported by voluntary contributions, and cannot say that I have ever found an establishment better fitted up and kept in finer trim for its purposes. The scrupulous cleanliness in which all wards and departments are kept is well worthy of mention here. The receipts are from private donations and income from investments. I inclose an annual balance sheet which gives in full all details of income and expenditure and the amounts spent for each item, as it may serve a valuable purpose to compare with our cost for the maintenance of an average of about 175 patients and some 60 attendants:

Statement of accounts from October 25, 1884, to October 25, 1885.

RECEIPTS.

	£	s.	d.	£	s.	d.
Subscriptions	2,226	3	6			
Arrears of subscriptions	77	14	0			
Subscriptions to children's wards	54	10	6			
				2,358	8	0
Establishment subscriptions				3,508	11	3
Donations:						
The North Staffordshire Charity Football Association, per Messrs. Allen & Slaney	63	0	0			
Mrs. Hitchman, Fenton House, to the children's wards.	50	0	0			
An unknown friend, per Mr. C. Cooper, Stoke-on-Trent (6th donation, £275 in all)	50	0	0			
The Sutherland Lodge of Freemasons, Newcastle-under-Lyme, to children's wards	5	5	0			
Mrs. Allison, in acknowledgment of the kindness and attentions received by her son, the late Mr. F. Allison, formerly of Launceston, Tasmania	5	0	0			
Miss S. Ford, Chesterton, to the children's wards	4	4	0			
Sundry donations	11	0	0			
				188	9	0
Hospital Sunday and Saturday:						
Hospital Sunday collections, as per list	718	7	6			
Children's collections in Sunday schools, &c., for the children's wards	17	1	3			
				735	8	0
Hospital Saturday collections, as per list				155	17	0
Miscellaneous:						
The managers of the North Staffordshire Infirmary coffee stall, per Mrs. Samuda	31	10	0			
Part proceeds of the Sir Moses Montefiore Centenary in the Hebrew Synagogue, Hanley	3	0	0			
Fenton Ice Accident Fund, per the Mayor of Stoke-upon-Trent	2	7	6			
Proceeds of concert at Hanchurch, per J. Martin	2	0	3			
Anonymous	2	2	0			
Contents of charity box—North Stafford Infirmary	1	7	4			
Grapes Hotel, Stoke-upon-Trent, collected in smoke room	0	13	6			
Payments with patients—children's wards	10	0	0			
Payments with patients—Victoria wards	1	0	0			
Acknowledgments, compromises, and fines	11	10	8			
A thank offering	0	10	0			
Payment by a visitor	1	5	6			
Dripping sold						
Bones sold						

	£ s. d.	£ s. d.
Funded property, &c.:		
Twelve months' dividend on £80 North Staffordshire Railway Company, Trent and Mersey Navigation preference shares	3 17 9	
Twelve months' interest on £14,300 Stoke-on-Trent Corporation debenture	555 18 3	
Twelve months' interest on £612 4s. 11d., Longton Corporation stock	22 5 0	
Twelve months' dividend on £470 3s. consolidated 3 per cent. annuities	13 13 3	
Twelve months' interest on £955 2s. 6d., Midland Railway debenture stock	34 19 9	
Twelve months' interest on £9565s., London and North-western Railway debenture stock	34 19 9	
Twelve months' interest on £588 10s., North Staffordshire Railway debenture stock	22 14 4	
Twelve months' interest on £7,235 4s. 4d., Manchester ground rents	351 4 2	
Twelve months' interest on £4,910, Wimbledon ground rents	208 13 5	
Twelve months' interest on £750, Crewe ground rents.	32 18 9	
Twelve months' interest on £3,645, Rusholme ground rents	157 5 6	
Twelve months' interest on £1,780 3s. 6d., Blackburn ground rents	78 18 9	
Three months' interest on £1,000, New Zealand Government bonds	12 1 8	
		1,529 10 4
		8,670 9 4
Interest allowed by the treasurer, second half year		3 4 0
		8,673 13 4
Balance carried down, deficiency		219 3 11
		8,892 17 3

EXPENDITURE.

Butcher's meat (exclusive of house pigs, 2,150 pounds)	1,468 8 9
Corned beef	9 10 3
Potatoes	57 17 0
Vegetables	5 0 6
Bread	316 1 1
Fish and poultry	249 6 6
Meal and flour	16 1 11
Milk	412 2 0
Cheese	65 4 2
Butter	359 10 2
Eggs	52 17 2
Tea	93 7 10
Coffee and cocoa	36 10 4
Moist sugar	36 9 6
Lump sugar	20 1 6
Rice	20 8 6
Sago, &c	70 1 6
Soap	29 17 2
Soft soap	87 16 8
Candles	5 9 10
Gas	257 15 0
Ale, porter, and beer	127 12 0
Water	35 13 6
Earthenware and glass	30 5 6
	421 8 0

	£	s.	d.	£	s.	d.
Dispensary:						
Drugs	533	19	9			
Spirits of wine	101	15	0			
Calico, lint, and cotton wool	73	11	4			
Earthenware and glass	10	4	9			
Instruments	75	3	7			
Labels and paper	9	4	8			
Gutta-percha, jaconet, and gauze	75	5	0			
Soda-water and lemonade	9	5	0			
Water beds and waterproof sheeting	26	17	6			
Plaster, oakum, tow, and sponges	57	14	0			
Carriage of goods	13	6	3			
Sundries	7	19	0			
				994	6	8
Salaries and wages:						
House surgeon, house physician, secretary and house steward, secretary's assistant, dispenser, superintendent of nurses, and housekeeper	770	18	7			
Engineer and stoker, gardeners, porters, nurses, and servants	993	17	11			
				1,764	16	6
Miscellaneous:						
Advertising, general account, £11 13*s.* 3*d*; hospital Sunday and Saturday, £6 18*s.* 6*d*	18	11	9			
Insurance	20	0	0			
Postage, stationery, and printing, general account, £89 7*s.* 10*d.*; hospital Sunday and Saturday, £31 10*s.* 6*d*	120	18	4			
Painting, plumbing, glazing, and cleaning, painting and whitewashing wards, &c	290	11	0			
Ice	20	18	10			
Hay, straw, and corn	6	8	0			
Engine and smith's work	53	13	5			
Joiner's and bricklayer's work	237	5	0			
Solicitors' charges and disbursements	6	3	0			
Annual grant to medical library	10	0	0			
Contract ticket, N. S. Railway	9	3	9			
Garden seeds, plants, and manure	21	0	8			
Labor in grounds	1	15	0			
Porter's uniform	4	10	0			
Louvres to windows, ward 7, &c	17	11	0			
Rent and maintenance of telephones	43	0	0			
Rent of house	25	0	0			
New fire hose and fittings	32	1	0			
Hand-grenade fire extincteurs	5	2	0			
New kitchen range	27	4	6			
Hot-water boiler and connections	56	4	0			
Wire mattresses to medical wards	107	2	6			
Book cupboard for board room	16	10	0			
Alterations to surgery, to form examination room	22	11	0			
Lead coverings to ward lavatories	10	9	0			
Paving at front entrance, &c	12	0	11			
Saddler's work	3	19	2			
Burial of patients	4	8	0			
Sweep	7	9	3			
Barber	3	18	0			
Sundry payments ordered by the committee	48	4	6			
Sundries	10	5	2			
				1,273	18	9
				8,887	8	9
Interest charged by the treasurer, first half year				5	8	6
				8,892	17	3

Underneath I give the expenditure since 1875 and average per bed and per patient:

Expenditure since 1875, *and averages per bed and per patient.*

Year.	Total expenditure.	Cost of each in-patient.	Cost of drugs for each out-patient.	Cost of bed occupied for the whole year.	Cost per inmate (patients and household) per week in provisions, stimulants, and gas.	Daily average of patients in ward.	Daily average of household.	Average stay in days of each in-patient.
	£	£ s. d.	s. d.	£ s. d.	s. d.			
1875–'76	7,321	5 17 0	2 2	65 0 4	7 4½	112.6	48.9	36
1876–'77	7,404	4 18 9	2 2	64 1 2	7 7¼	115.7	49.7	31.78
1877–'78	8,234	4 12 0¾	2 2	57 6 4	7 4	143.6	54.6	33.75
1878–'79	8,085	4 8 6	2 2	52 10 4	6 9	154.08	56.7	35.44
1879–'80	8,012	4 9 11	2 2	54 17 7	7 1¼	146.5	57	35.27
1880–'81	7,716	4 9 5	2 2	56 14 10	7 1¾	136	57	33.07
1881–'82	8,042	4 2 9	2 2	58 5 6	6 3	138	58	29.32
1882–'83	9,005	4 11 4½	2 4	59 5 0	7 3½	152	60	31.63
1883–'84	7,985	4 5 9	2 4	57 0 9	7 0¾	140	59	30.51
1884–'85	8,887	4 16 10¾	1 9¾	54 16 0	6 9	162	59	35.62

The comparative cost per head per day for the month of January, in each of the last four years for provisions consumed, was as follows: Cost of rations, &c., 1886, 22.79 cents; 1885, 24.46 cents; 1884, 24.10 cents; 1883, 25.36 cents. The present year shows the smallest expenditure, due to the low range of prices. The average daily number for the same period was as follows:

Character of relief.	1886.	1885.	1884.	1883.
Children	8	13	13	11
Patients	175	162	143	146
Establishment	62	60	60	58
Total	237	222	203	204

The cost of the daily ration was distributed among the various victuals forming the ration, as follows:

Cost per head per day in undermentioned items.

Articles.	1886.	1885.	1884.	1883.
	Cents.	Cents.	Cents.	Cents.
Bread, flour, and meal	1.90	2.10	2.28	2.40
Milk	2.26	2.44	2.26	2.42
Groceries	1.68	1.48	1.54	1.70
	2.64	2.54	2.74	2.62
	8.20	9.06	9.64	10.38
			24	.70

The cost of a ration per head is considerably in excess of what it would be to householders, as no meal or part of a meal which has once entered a sick room is ever used again on hygienic grounds.

The cost of the principal items of diet to the infirmary are as follows:

Bread	per pound	$0 02
Milk	per gallon	20
Coffee	per pound	26
Tea	do	42
Sugar	do	4½–5
Rice	do	2½
Cheese	do	10
Best butter	do	26
Beef	do	13
Mutton	do	13½
Pork and veal	do	13
Potatoes	per 252 pounds	1 70
Fish	per pound	5
Gas	per 1,000 feet	73

This list of prices will give a fair comparison with prices paid in America by the quantity, and under like favorable terms and purchasing advantages.

The directors are of the most prominent and wealthiest people of the district, and the personal care and attendance they devote to this charitable purpose shows its fruit in the general appearance and favorable conditions of this benevolent institution.

As to poverty, there was a good deal of suffering this last winter, but the cases mostly belonged to the building trades, which, on account of the long and severe winter, suffered great interruption.

Otherwise I cannot find much in the queries sent out by the Department which is not covered by what has been said heretofore. Pauper emigration there is none, nor can I learn that the local or general government are assisting emigrants. The few that go, go voluntarily.

J. SCHOENHOF,
Consul.

UNITED STATES CONSULATE,
Tunstall, August 14, 1886.

SCOTLAND.

*REPORT OF CONSUL MALMROS.**

The instructions of the Department are to report upon the emigration from this consular district to the United States. As, however, no records are kept either by the local authorities or those of the United Kingdom, classifying emigrants according to the localities they belong to otherwise than by drawing the broad distinction as to whether they have been residents of either England, Scotland, or Ireland, I have found it impossible, in regard to a number of statistics, to report separately upon the emigration from this consular district. Whenever, therefore, figures are given referring to the
to this *distri*

In the classification of emigrants according to their occupation the fact of their being British subjects only is considered worthy of attention by the authorities, and the records do not, therefore, show what number of persons following each occupation emigrate from each of the three great subdivisions of the country, England, Scotland, and Ireland, separately. It is, however, believed, and I think correctly, that the proportion which each of the several principal occupations represented amongst emigrants from England bears to the total number of emigrants from that section of the Kingdom does not vary greatly from that which emigrants of the same occupations from Scotland bear to the aggregate emigration from the latter section. When we come to Ireland the case is different. In the total emigration from that island the relative proportion of the agricultural classes, general laborers, and domestic servants is considerably larger, and of the industrial classes smaller, than in the emigration from either England or Scotland, but by how much the one is larger and the other smaller can, with such facts as are at present obtainable, not be ascertained with any degree of accuracy.

The subjoined table contains a list of emigrants to the United States of British and Irish origin during the years from 1879 to 1885 classified according to sex, occupation, proportionate percentage irrespective of occupation, and including infants of each of the nationalities mentioned.

TABLE A.—*Emigration from Great Britain and Ireland to the United States.*

	1879.		1880.		1881.		1882.		1883.		1884.		1885.	
Adult males.	*No.*	*P. ct.*	*No.*	*P. ct.*	*No.*	*P. ct.*	*No.*	*P. ct.*	*No.*	*P. ct.*	*No.*	*P. ct.*	*No.*	*P. ct.*
l general laborers, gardeners, carters, domestic	18,842	24.33	43,951	31.62	50,619	35.16	53,557	35.31	50,947	32.95	39,878	31.15	31,261	26.89
s, including mechanics, butchers, &c	12,256	15.95	12,363	8.89	12,779	8.87	10,410	6.99	11,494	7.43	9,551	7.46	8,919	7.67
ssional men, agents, clerks, &c	5,300	6,84	6,288	4.52	7,622	5.29	9,131	6.13	8,688	5.62	7,985	6.23	5,652	4.86
ziers	3,186	4.11	5,596	4.02	3,186	2.21	3,564	2.39	4,363	2.82	3,023	2.36	3,518	3.02
	117	.15	106	.07	105	.07	56	.03	115	.07	170	.13	186	.16
y men	32	.04	15	.01	26	.02	18	.01	53	.03	6	.00	4	.00
professions	1,155	2.00	2,261	1.62	2,220	1.54	1,442	.96	1,215	.78	697	.54	622	.53
not stated	7,264	9.38	9,895	7.12	9,682	6.72	11,055	7.42	12,120	7.83	12,188	9.52	17,303	14.88
Adult females.														
servants, &c	5,624	7.26	14,356	10.33	14,901	10.35	14,346	9.63	19,482	12.60	14,296	11.16	14,915	12.83
governesses	33	.04	27	.02	37	.02	42	.03	25	.02	24	.02	52	.04
men, &c	212	.27	165	.11	155	.11	325	.21	515	.33	342	.26	380	.32
rofessions	156	.20	174	.12	362	.25	334	.22	452	.29	246	.19	161	.13
n not stated	22,854	29.50	43,772	31.49	42,240	29.34	45,567	30.61	45,150	29.20	39,607	30.94	33,246	28.66
	77,431	.....	138,969	.....	143,934	.....	148,847	.....	154,619	.....	128,013	.....	116,219	.....
12 years, and infants	14,375	.....	27,601	.....	32,170	.....	33,056	.....	36,954	.....	27,267	.....	21,468	.....
	91,806	.....	166,570	.....	176,104	.....	181,903	.....	191,573	.....	155,280	.....	137,687	.....
	.....	57	.....	42	.....	52	.....	52	.....	49	.....	53	.....	53
	.....	10	.....	8	.....	10	.....	10	.....	8	.....	9	.....	10
	.....	33	.....	50	.....	38	.....	38	.....	43	.....	38	.....	37

CHARACTER OF EMIGRATION.

While the exact proportion of emigrants which the different classes of society furnish cannot be stated, it is certain that agriculturists, operatives in manufactories, and mechanics furnish the great body of emigrants from this district. Those drawn from the other classes are numerically not important. The morality, taking this word in its broad and not merely sexual sense, of the emigrants is good, and fully up to the average of that of the respective classes to which they belong. They are as a rule of good character, of frugal, industrious habits, either church members, or at least attend church service with considerable regularity, and are animated by a desire to succeed in life. Frugality is, however, generally speaking, not one of the virtues of coal miners. Worthless members of society amongst the emigrants are infrequent exceptions. The working classes are, however, not without faults, the most prominent of which is drunkenness, a vice here but too often met with. In this respect they compare unfavorably with the masses of some other countries; for example, of Italy or Greece. But inquiries on this subject have convinced me that a great improvement in this respect has taken place in the course of the last thirty or forty years; in fact, older, trustworthy persons, who either still are workingmen, or who commenced their life as such, agree in stating from their own personal experience that drunkenness amongst the classes from which the emigrants are principally drawn has diminished at least 50 per cent. since about 1850. Official or other reliable statistics on the subject are not published. The higher and the elementary education is well provided for, and meets the wants and just expectations of the community. Of the secondary education, *i. e.*, the one destined for the training of children for commercial, technical, and industrial pursuits, the same cannot be said. Its deficiencies are generally acknowledged and will be remedied in the near future.

The following table (B) of marriages in Scotland from 1855 to 1884, containing the percentage of those who signed marriage contract by writing and of those who signed by mark, shows the great progress in elementary education in Scotland during those years, reducing the percentage of illiteracy by nearly one-half.

TABLE B.—*Marriages in Scotland*, 1855–1884.

Years.	Percentage who married.						Percentage who signed.			
	Under 21 years.		Under 25 years.		Above 25 years.		By writing.		By mark.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
1855	(?)	(?)	39.44	57.99	60.56	42.01	88.60	77.10	11.40	22.90
1856	(?)	(?)	40.79	58.44	59.21	41.56	89.13	76.05	10.87	23.95
1857	7.47	21.43	42.19	58.84	57.81	41.16	87.89	75.34	12.11	24.66
1858	7.38	21.23	41.25	58.70	58.75	41.30	88.16	75.95	11.84	24.05
1859	7.42	21.60	41.22	58.80	58.78	41.20	89.58	77.80	10.42	22.10
1860	7.36	21.77	40.89	58.89	59.11	41.11	89.68	78.28	10.32	21.72
1861	7.09	21.13	40.96	58.72	59.04	41.28	89.39	78.67	10.61	21.33
1862	7.62	21.86	42.11	59.35	57.89	40.65	89.99	79.65	10.01	20.35
1863	7.91	22.05	43.79	59.93	56.21	40.07	89.14	77.89	10.86	22.11
1864	7.46	21.99	42.57	59.73	57.42	40.26	88.54	76.12	11.46	23.88
1865	7.16	21.26	41.38	58.84	58.62	41.16	88.58	77.78	11.42	22.22
1866	7.20	20.69	41.91	58.52	58.09	41.48	88.78	78.50	11.22	22.00
1867	6.77	20.41	40.63	57.47	59.37	42.53	89.41	79.27	10.59	20.73
1868	6.68	20.45	39.69	57.00	60.31	43.00	90.19	80.99	9.81	19.01
1869	7.08	20.87	39.70	57.34	60.30	42.66	89.92	80.04	10.08	19.96
1870	7.32	21.72	40.52	57.60	59.48	42.40	89.73	80.46	10.27	19.54
1871	7.58	22.15	41.20	58.06	58.80	41.94	90.05	80.42	9.95	19.58
1872	7.71	22.10	41.78	58.32	58.22	41.68	89.56	79.48	10.44	20.52
1873	8.33	22.91	43.26	59.58	56.74	40.42	90.38	81.33	9.62	18.67
1874	8.25	22.73	43.29	59.40	56.71	40.60	90.90	82.01	9.10	17.99
1875	8.10	22.44	42.58	58.72	57.42	41.28	91.40	83.09	8.60	16.91
1876	8.18	22.63	43.16	59.26	56.84	40.74	92.50	83.87	7.50	16.13
1877	7.98	22.34	43.06	59.46	56.94	40.54	92.44	84.59	7.56	15.41
1878	7.71	22.32	42.77	59.75	57.23	40.25	93.13	85.55	6.87	14.45
1879	7.64	22.06	42.11	59.00	57.89	41.00	92.37	84.69	7.63	15.31
1880	7.22	22.01	41.71	59.69	58.29	40.31	92.62	84.79	7.38	15.21
1881	6.98	22.27	41.60	59.69	58.40	40.31	92.94	86.06	7.06	13.94
1882	7.75	22.54	41.85	60.11	58.15	39.89	93.15	86.84	6.85	13.16
1883	7.54	22.09	41.45	59.59	58.55	40.41	93.64	87.90	6.36	12.10
1884	7.37	22.30	40.72	58.90	59.28	41.10	93.84	88.67	6.16	11.33

TABLE C.—*Percentage of those who signed the marriage contract by writing and of those who signed it by mark for the year 1884 alone, by groups of districts, divisions, and counties, and also separately, of the cities of Edinburgh and Glasgow.*

	Signed by writing.		Signed by mark.		Persons under 21 years.	
	Men.	Women.	Men.	Women.	Men.	Women.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Scotland	93.84	88.67	6.16	11.33	7.37	22.30
Groups.						
Principal town districts	93.57	87.66	6.43	12.34	8.25	23.87
Large town districts	93.19	88.81	6.81	11.19	9.28	24.23
Small town districts	93,32	87.82	6.68	12.18	6.68	22.11
Mainland, rural	96.50	74.80	3.50	5.20	5.52	19.06
Insular, rural	83.53	62.14	16.47	37.86	2.38	13.75
Divisions.						
Northern	98.20	90.51	1.80	9.49	3.76	16.04
Northwestern	79.36	57.40	20.64	42.60	0.84	12.89
Northeastern	98.23	96.11	1.77	3.89	6.05	18.99
East Midland	96.93	91.84	3.07	8.16	8.61	20.64
West Midland	91.66	88.37	8.34	11.63	5.90	21.12
Southwestern	91.46	85.11	8.54	14.89	8.75	26.04
Southeastern	96.93	95.21	3.07	4.79	5.73	20.44
Southern	97.50	96.78	2.50	3.22	6.88	16.71
Counties.						
Shetland	97.71	83.43	2.29	16.57	5.71	11.43
Orkney	100.00	99.43	0.00	0.57	3.43	18.29
Caithness	96.63	90.45	3.37	9.55	3.93	19.10
Sutherland	98.80	86.75	1.20	13.25	0.00	14.46
Ross and Cromarty	73.92	46.41	26.08	53.59	0.48	11.96
Inverness	84.76	68.33	15.24	31.67	1.19	13.81
Nairn	93.33	86.67	6.67	13.33	2.22	4.44
Elgin	97.28	94.16	2.72	5.84	3.50	11.67
Banff	98.21	94.88	1.79	5.12	6.14	16.11
Aberdeen	98.54	96.97	1.46	3.03	6.88	21.06
Kincardine	97.88	95.77	2.12	4.23	2.65	19.58
Forfar	95.91	87.16	4.09	12.84	10.36	22.01
Perth	98.51	95.66	1.49	4.34	5.43	18.32
Fife	97.55	95.98	2.45	4.02	8.13	20.63
Kinross	100.00	98.08	0.00	1.92	3.85	19.23
Clackmannan	96.48	94.37	3.52	5.63	7.04	14.79
Stirling	93.03	93.60	6.97	7.40	7.68	23.47
Dumbarton	88.48	83.59	11.52	16.41	5.47	20.51
Argyll	92.60	86.39	7.40	13.61	4.14	18.05
Bute	95.56	90.00	4.44	10.00	1.11	17.78
Renfrew	92.10	87.57	7.90	12.43	8.66	24.81
Ayr	43.93	87.73	6.07	12.27	7.13	22.07
Lanark	90.87	84.11	9.13	15.89	9.07	27.02
Linlithgow	92.66	91.96	7.34	8.04	6.64	30.77
Edinburgh	97.38	95.51	2.62	4.49	5.65	20.16
Haddington	94.20	91.30	5.80	8.70	6.76	23.67
Berwick	97.70	97.70	2.30	2.30	5.75	11.49
Peebles	98.63	98.63	1.37	1.37	6.85	13.70
Selkirk	98.15	96.30	3.70	3.70	2.78	13.89
Roxburgh	98.41	96.83	1.59	3.17	6.35	13.49
Dumfries	97.48	98.17	2.52	1.83	6.86	18.76
Kircudbright	98.23	98.23	1.77	1.77	5.75	16.37
Wigtown	95.59	92.16	4.41	7.84	8.82	16.67
Edinburgh	97.65	96.06	2.35	3.94	5.44	17.62
Glasgow	90.73	82.48	9.27	17.52	9.39	26.42

TABLE D.—*Number and proportion of men and women in Scotland at each quinquennial period of age who contracted marriage during the years* 1855–1884.

Ages.	Men.		Women.	
	Number who married at each age.	Percentage at each age to total marriages.	Number who married at each age.	Percentage at each age to total marriages.
15 to 20 years	21,364	3.03	91,977	13.02
20 to 25 years	272,739	38.61	323,077	45.73
25 to 30 years	211,391	29.92	167,649	23.73
30 to 35 years	87,741	12.42	60,523	8.57
35 to 40 years	45,786	6.48	31,777	4.50
40 to 45 years	27,079	3.83	16,677	2.36
45 to 50 years	16,893	2.39	8,317	1.18
50 and above	22,773	3.22	5,295	0.75
Not stated	670	0.10	1,144	0.16
Total	706,436	100.00	706,436	100.00

DIVORCE.

Statistics of decrees in divorce cases in Scotland are not published or collected, but I have succeeded in obtaining them from the records for the years 1875 to 1885, as shown in the table below, marked E:

TABLE E.—*Decrees in divorce cases pronounced in court of session from* 1875 *to* 1885, *inclusive.*

Year.	Artisans.	Agriculturists.	Merchants.	Professional.	Others.	Total.	Year.	Artisans.	Agriculturists.	Merchants.	Professional.	Others.	Total.
1875	16	1	5	4	15	41	1882	24	2	5	4	25	60
1876	20	2	8	8	29	67	1883	23	2	9	7	23	64
1877	21	2	9	5	27	64	1884	25	3	17	4	24	73
1878	28	1	7	7	27	70	1885	30	4	16	2	28	80
1879	24	3	9	7	14	57							
1880	27	1	7	6	33	74	Total	259	23	110	60	273	725
1881	21	2	18	6	28	75							

The divorces referred to are all divorces from the bonds of matrimony. Decrees for mere separation from bed and board are seldom made in Scotland. Their proportion to absolute divorces is very nearly that of 1 of the former to each 50 of the latter.

Tables marked F and G, respectively, contain, the former statistics of percentage of illegitimate to total births in Scotland as a unit during the years 1855 to 1884, the latter table contains information on the same subject, but for the year 1884 only, and grouped according to districts, divisions, and counties.

A remarkable feature of illegitimacy in Scotland, as will be seen by reference to the following tables, is its very high percentage in the purely agricultural districts, largely exceeding that in towns and large cities. In this respect it differs from all other

VITAL STATISTICS.

TABLE F.—*Population estimated to the middle of each year, with the number of births, deaths, and marriages registered in Scotland during each of the years 1855 to 1884, and their proportion to the population; also the excess of births over deaths, the illegitimate births, and their proportion to the total births.*

Years.	Estimated population.	Births.		Deaths.	Marriages.	Excess of births over deaths.	Percentage to population.			Per cent. of illegitimate to total births.
		Total.	Illegitimate.				Births.	Deaths.	Marriages.	
1855	2,978,065	93,349	7,357	62,004	19,680	31,345	3.1491	2.0820	0.6608	7.8
1856	2,995,771	101,821	8,695	58,529	20,740	43,292	3.3988	1.9537	0.6923	8.5
1857	3,012,310	103,415	8,869	61,906	21,369	41,509	3.4331	2.0551	0.7094	8.5
1858	3,027,665	104,018	9,354	63,539	19,655	40,479	3.4356	2.0986	0.6492	8.9
1859	3,041,812	106,543	9,715	61,714	21,201	44,829	3.5026	2.0288	0.6969	9.1
1860	3,054,738	105,629	9,736	68,170	21,225	37,359	3.5578	2.2316	0.6948	9.2
1861	3,069,404	107,009	9,929	62,341	20,896	44,668	3.4863	2.0310	0.6808	9.2
1862	3,097,009	107,069	10,376	67,195	20,597	39,874	3.4572	2.1697	0.6651	9.7
1863	3,126,879	109,341	10,948	71,481	22,234	37,860	3.4968	2.2860	0.7160	10.0
1864	3,156,021	112,333	11,197	74,416	22,725	37,917	3.5594	2.3579	0.7200	9.9
1865	3,185,437	113,070	11,262	70,891	23,611	42,179	3.5496	2.2255	0.7412	9.9
1866	3,215,129	113,667	11,673	71,348	23,688	42,319	3.5354	2.2191	0.7367	10.2
1867	3,245,098	114,044	11,148	69,067	22,618	44,976	3.5063	2.1284	0.6970	9.7
1868	3,275,350	115,514	11,354	69,416	21,855	46,098	3.5267	2.1193	0.6673	9.8
1869	3,305,885	113,354	11,066	75,875	22,144	37,479	3.4288	2.2951	0.6698	9.7
1870	3,336,707	115,390	11,108	74,165	23,854	41,225	3.4582	2.2227	0.7149	9.6
1871	3,368,921	116,128	11,077	74,712	24,019	41,416	3.4470	2.2177	0.7130	9.5
1872	3,404,768	118,765	10,927	75,794	25,641	42,971	3.4882	2.2261	0.7531	9.2
1873	3,441,056	119,700	10,925	76,946	26,748	42,754	3.4786	2.2361	0.7773	9.1
1874	3,477,704	123,711	10,991	80,720	26,390	42,991	3.5573	2.3211	0.7588	8.9
1875	3,514,744	123,578	10,786	81,767	25,974	41,811	3.5160	2.3264	0.7390	8.73
1876	3,552,813	126,534	11,029	74,129	26,579	52,405	3.5621	2.0869	0.7482	8.72
1877	3,590,022	126,822	10,568	73,937	25,819	52,885	3.5326	2.0595	0.7191	8.33
1878	3,628,268	126,773	10,641	76,793	24,358	49,980	3.4940	2.1165	0.6713	8.39
1879	3,665,443	125,730	10,727	73,347	23,519	52,383	3.4301	2.0010	0.6416	8.53
1880	3,705,994	124,570	10,589	75,803	24,505	48,767	3.3613	2.0454	0.6612	8.50
1881	3,745,485	126,171	10,484	72,325	26,004	53,846	3.3686	1.9310	0.6943	8.31
1882	3,785,400	126,158	10,546	72,989	26,596	53,169	3.3328	1.9282	6.7026	8.36
1883	3,825,744	124,458	10,114	76,891	26,869	47,567	3.2532	2.0098	0.7023	8.13
1884	3,866,521	129,157	10,439	75,168	26,106	53,989	3.3404	1.9441	0.6752	8.08

TABLE G.—*Number of births, deaths, and marriages in 1884, and their proportion to the population, estimated to the middle of the year, in Scotland, its groups of districts, its divisions and counties; also the number of illegitimate births and their proportion to the total births.*

Divisions and counties.	Population estimated to middle of year 1884.	Total births.		Illegitimate births.		Deaths.		Marriages.	
		Number.	Percentage to population.	Number.	Percentage to births.	Number.	Percentage to population.	Number.	Percentage to population.
Scotland	3,866,521	129,157	3.3404	10,439	8.08	75,168	1.9441	26,106	0.6752
Principal town districts	1,487,062	54,156	3.642	3,995	7.4	34,025	2.288	12,242	0.823
Large town districts	409,796	14,549	3.550	968	6.7	8,248	2.013	2,877	0.702
Small town districts	821,393	27,497	3.345	2,188	8.0	14,917	1.815	5,166	0.629
Mainland rural districts	1,017,858	29,740	2.922	3,098	10.4	16,024	1.574	5,232	0.514
Insular rural districts	129,872	3,215	2.476	196	5.9	1,954	1.505	589	0.454

TABLE G.—*Number of births, deaths, and marriages in* 1884, *&c.*—Continued.

Divisions and counties.	Population estimated to middle of year 1884.	Total births.		Illegitimate births.		Deaths.		Marriages.	
		Number.	Percentage to population.	Number.	Percentage to births.	Number.	Percentage to population.	Number.	Percentage to population.
Counties.									
Shetland	29,115	718	2.466	37	5.2	434	1.491	175	0.601
Orkney	32,301	745	2.306	55	7.4	479	1.483	175	0.542
Caithness	39,491	1,028	2.603	121	11.8	568	1.438	178	0.451
Sutherland	22,086	516	2.336	42	8.1	346	1.567	83	0.376
Ross and Cromarty	78,632	1,989	2,530	100	5.0	1,186	1.508	418	0.532
Inverness	87,117	2,253	2.586	167	7.4	1,404	1.612	420	0.482
Nairn	9,008	237	2.631	31	13.1	157	1.743	45	0.500
Elgin	45,293	1,456	3.215	220	15.1	744	1.643	257	0.567
Banff	60,079	2,082	3.465	335	16.1	969	1.613	391	0.651
Aberdeen	276,416	8,940	3.234	1,226	13.7	4,686	1.695	1,714	0.620
Kincardine	35,587	1,105	3.105	132	11.9	579	1.627	189	0.531
Forfar	278,193	9,066	3.259	861	9.5	5,399	1.941	1,931	0.694
Perth	130,851	3,518	2.689	310	8.8	2,188	1.672	737	0.563
Fife	175,640	5,633	3.207	356	6.3	3,217	1.832	1,144	0.651
Kinross	7,148	196	2.742	21	10.7	112	1.567	52	0.727
Clackmannan	24,640	805	3.267	47	5.8	401	1.627	142	0.576
Stirling	111,509	3,828	3.433	269	7.0	2,046	1.835	703	0.630
Dumbarton	84,699	2,932	3.462	157	5.4	1,528	1.804	512	0.604
Argyll	81,126	2,091	2.577	145	6.9	1,379	1.700	338	0.417
Bute	17,858	446	2.497	31	7.0	368	2.061	90	0.504
Renfrew	236,046	8,701	3.686	491	5.6	5,126	2.172	1,697	0.719
Ayr	222,979	7,744	3.473	552	7.1	4,202	1.884	1,500	0.673
Lanark	997,288	39,027	3.913	2,529	6.5	23,047	2.311	8,152	0.817
Linlithgow	44,901	1,913	4.260	130	6.8	868	1.933	286	0.637
Edinburgh	410,200	13,018	3.174	961	7.4	8,104	1.976	3,096	0.755
Haddington	38,762	1,098	2.833	91	8,3	696	1.796	207	0.534
Berwick	34,919	968	2.772	109	11,3	497	1.423	174	0.498
Peebles	14,203	388	2.732	30	7.7	212	1 493	73	0.514
Selkirk	28,981	877	3.026	79	9.0	449	1.549	108	0.373
Roxburgh	58,089	1,456	2.692	152	10.4	936	1.730	252	0.466
Dumfries	76,607	2,143	2.797	304	14.2	1,465	1.912	437	0.570
Kircudbright	42,356	1,160	2.739	175	15.1	684	1.615	226	0.534
Wigtown	38,401	1,080	2.812	173	16.0	692	1.802	204	0.531

In the year 1883, according to the registrar's return, 47 per cent. of the mothers who bore illegitimate children were in domestic service, 24 per cent. were factory workers, 10 per cent. were agricultural servants, 8 per cent. had no occupation, but were daughters of workingmen, 6 per cent. were seamstresses. Of nearly 4 per cent. no information is given on the point to the registrars, the mothers in most cases, however, being widows, while about 1 per cent. were the daughters of professional men. No information on the point is accessible in regard to any year subsequent to 1883. The probability, however, is that the percentage given for the latter year applies without considerable variation to the following as well as to preceding years. As a rule the fathers and mothers of illegitimate children in Scotland belong to the same classes of society, with a striking difference, however, in the case where the mothers belong to the class of domestic servants in towns.

The registrar-general of Scotland, in his report of 1871, the last one in which he investigates the causes of illegitimacy in the country, points out that in numerous instances the parents of these illegitimate children are true to each other, a woman having often
by the same man, and that
subse

child or of children, one of his main objects in marrying being to raise children who may support him in his old age when he will be unable to earn enough, if anything, for his own support. The registrar-general, after further pointing out that no connection can be traced in Scotland between the proportion of illegitimate births and ignorance or want of instruction, that the percentage of such illegitimacy is independent of the proportion of the number of marriages in a district to the number of its inhabitants; that there is neither a traceable connection between illegitimacy and (1) the proportion of large farms to small holdings, nor (2) between illegitimacy and excess, wherever such exists, of females over males in the population, and that (3) the degree of house accommodation does not appear to perceptibly influence the percentage of illegitimate births, concludes this part of his report of 1871 with the remark: "It will thus be seen that we have not yet discovered the solution of the problem as to illigitimacy."

While dwelling on this subject I may add there are not in Scotland, as in at least some of the minor states of the Continent, legal regulations throwing obstacles in the way of the marriage of poor laboring people, and leading necessarily to illicit cohabitation and illegitimate births, nor has the Scottish clergy, for generations at least, failed to attack the evil of illegal sexual connection; and the extraordinary frequency of bastardy in some of the rural counties cannot therefore be ascribed even partly to any neglect of duty in this respect on their part, nor can the source of evil be found in a want of innocent amusements, as all classes of the people engage often and with zeal in a great variety of healthy and pleasantout door games, such as golfing, curling, foot-ball, cricket, and many others. As to none of the special causes or social conditions which elsewhere are productive of an exceptionally large percentage of bastardy can be traced, the proportion of illegitimacy existing, for example, in the agricultural counties of Banff, (16.1 per cent.), Wigtown (16 per cent.), Kirkcudbright and Elgin (15.1 per cent. each), there seems to be but one hypothesis capable of accounting for it, and that is, that this illegitimacy does not present at all a case of true demoralization, *i. e.*, degradation from a higher moral plane, consciousness of moral guilt, or loss of self-respect, but one of an early arrested moral development in this special direction for, generally speaking, the Scottish people compare, from a moral point of view, favorably with other nations. From statistical records this hypothesis can indeed derive no support, because in preceding ages no such records were kept, but from occasional allusions in older writers and from oral tradition we may gather that illegitimacy in the above and other counties must always have been very numerous; and I am informed that the records of the kirk sessions justify the conclusion that in the matter of illegitimacy preceding generations could have had no claim to superiority over the people of our own times. In cases where parents of illegitimate children subsequently marry each other, they very generally remain faithful to their marital obligations, and little, if any, blame attaches in public opinion to the mother. The crimes of abortion and infanticide, rarely committed anywhere in Scotland, are, as may naturally be expected under the circumstances, almost unknown in the agricultural districts

referred to. [illegible] by the authorities, would

large indeed. But this much is certain, that, with a steadily increasing population, the number of severe sentences pronounced by the courts and the number of convicts in the penitentiary have during the last fifty years rapidly and steadily declined; a fact attributable to the gradual growth of a more humane sentiment, as well in the nation at large, inclining a smaller number of individuals to commit atrocious crimes, as in the judges and legislators, inclining them in turn to milder sentences and a milder criminal legislation.

CONDITION OF WORKINGMEN.

Concerning the capability of the Scottish artisan operative in factories or agricultural laborer for the work he has to perform, it may be, I think, justly said, that while he as a rule does not accomplish as much work within the same number of hours as his American colleague, nor thinks as constantly or intently about ways of improving and better adapting his tools to the work he has to execute with them, in order to make his labor easier to himself or to increase his products, he undoubtedly is superior in these respects to Englishmen of the same class.

The Scottish workingman cannot at all be called stolid, as the English workingman is; on the contrary, he is of a rather active, inquiring, and combining turn of mind, the result, in part at least, of the manner in which the reformation in his country was commenced and carried through, and the peculiar ecclesiastical and social spirit and organization engendered by it. Those Scottish mechanics and factory operatives who in early youth emigrate to the United States acquire in their new and stimulating surroundings in the course of a few years many of the qualities above alluded to as characteristic of American workingmen.

The growth of prosperity among laboring men during the last 30 years may reasonably be inferred from the fact that the large increase of the population of Scotland during that time has been accompanied by actual decrease in the number of persons receiving parochial relief as paupers.

The following table, marked H, showing the progress of business of the Edinburgh and Leith Savings Bank, points to the same conclusion, of an increasing prosperity of the workingmen, 90 per cent. of the depositors of the bank belonging to this class.

TABLE H.—*Progress of business of the Edinburgh and Leith Savings Bank.*

Year.	No. of transactions.	New accounts.	Open deposit accounts.	Population—census taken decennially only.	Percentage of the number of depositors to population.	Percentage of amount deposited to population.
1850	78,127	4,902	25,542	191,221	13.36	72.28
1855	87,566	5,345	26,387	.....	.....	.....
1860	107,853	6,483	29,481	201,749	14.62	107.31
1865	119,033	6,450	34,758	.....	.....	.....
1870	149,445	9,105	39,846	241,259	16.47	118.96
1875	184,940	9,776	49,031	.....	.....	.....
1880	215,987	10,171	55,690	289,561	19.17	143.00
1885	239,172	9,205	60,625			
1886	238,732					

TABLE H.—*Progress of business of the Edinburgh and Leith Savings Bank*—Continued.

Year.	Amount deposited.	Amount repaid.	Total funds.	Average amount deposited.
	£ s. d.	£ s. d.	£ s. d.	£5.41
1850	138,279 19 6	131,781 9 10	299,940 7 2	----------
1855	165,800 19 0	156,817 10 9	432,970 4 1	7.34
1860	216,612 4 6	184,840 10 9	545,294 4 1	----------
1865	209,705 1 11	229,071 11 0	605,329 11 5	7.20
1870	286,945 11 6	254,680 0 6	760,065 2 8	----------
1875	359,276 19 5	327,259 13 2	1,000,445 8 8	7.43
1880	414,090 1 0	400,139 11 7	1,263,035 9 8	----------
1885	491,616 16 4	474,364 5 11	1,477,635 2 11	8.26
1886	506,303 16 0	489,963 12 1	1,531,705 3 8	

*Population estimated to middle of year 1886.

That the workingmen are better off now than formerly is indeed generally admitted; but there is some difference of opinion amongst competent judges as to the degree in which their well-being has been increased. However, from inquiries I have made, I believe I am quite safe in saying that their condition has improved at least 30 per cent., making allowance for the, on the whole, probably slightly increased cost of living.

There is a unanimous concurrence of opinion to the effect that workingmen are very much better housed, clothed, and fed than they were some thirty years ago.

Relating to the condition, past and present, of the class of manual laborers in Great Britain, I insert the following extract of a lately published letter by Mr. J. Bright:

Let your workmen (says Mr. Bright) reflect on the change in their condition which free trade has made within the last forty years since the reform of our tariff. The corn law was intended to keep wheat at the price of 80*s.* the quarter; it is now under 40*s.* the quarter. The price of tea is now less than the duty which was paid upon it in former days; sugar is not more than one-third of its cost when a monopoly of East and West India sugar existed. As to wages in Lancashire and Yorkshire, the weekly income of the thousands of workers in factories is nearly, if not quite, double that paid before the time when free trade was established. The wages of domestic servants in the county from which I come are in most cases doubled since that time. A working brick-setter told me lately that his wages are now 7*s.* 6*d.* per day; formerly he worked at the rate of 4*s.* per day. Some weeks ago I asked an eminent upholsterer in a great town in Scotland what had been the change in wages in his trade. He said that thirty or forty years ago he paid a cabinet-maker 12*s.* per week; he now pays him 28*s.* per week. If you inquire as to the wages of farm laborers you will find them doubled, or nearly doubled, in some counties, and generally over the whole country advanced more than 50 per cent., or one-half, while the price of food and the hours of labor have diminished.

For information on the manner and expenses of living at the present time of operatives in factories I refer to page 334; of miners, to page 340; and of agricultural laborers, to pages 341 and 342 of No. 71 of Consular Reports, published by the Department, containing a report from me on the elements of cost of certain articles.

INCOME AND EXPENDITURES.

mode of life, income and

carpeted. Furniture consists of a table, a few chairs, a chest of drawers, sofa, a bed for the parents and a cot or small bed for the children. The furnishing of the house, including, besides the articles named, kitchen utensils, costs about £40. House rent, £8 15*s.* per annum.

Breakfast consists of tea and bread and butter for the parents, porridge for the children. Dinner: Principally broth, and beef boiled in it, potatoes; occasionally stewed steak or mutton in lieu of beef. Tea in the afternoon. Supper: Bread and butter, sometimes porridge.

Clothing and the cost thereof per year.

	£	s.	d.
Man.—1 suit clothes, £2 10*s.*; 1 flannel shirt, 5*s.* 6*d.*; 1 cotton shirt, 2*s.* 6*d.*; 1 pair flannel drawers, 5*s.* 6*d.*; 2 pairs socks, 2*s.* 6*d.*; 3 day shirts in two years, 12*s.*; per year, 6*s.*; hat, 4*s.* 6*d.*; 1 pair boots, 15*s.*	4	11	6
Wife.—Dress, £2; mantle or jacket, £1 10*s.*; bonnet, 10*s.*; gloves, 3*s.*; 2 pairs boots in 3 years, 11*s.* per year, 3*s.* 8*d.*	4	6	8
Childrens dress, complete, £2 5*s.*; 3 pairs boots per year, at 4*s.*, 12*d.*	2	17	0
Medical attendance		15	0
School fees and books for two children, about	1	0	0

Commodities used per week:	s.	d.
Beef, 4½ pounds	4	1½
Tea, ¼ pound		9
Sugar, 3 pounds		6
Bread, 6 loaves	3	0
Milk	1	10
Potatoes, 1 peck		8
Oatmeal, ½ peck		3½
Eggs, 1 dozen		10
Ham, ½ pound		6
Cheese, 1 pound		6
Butter, ¾ pound		9
Jam		3½
Soap and powder		6
Vegetables		4
Coals, &c	1	0
Total per week	15,	10½

	£	s.	d.
Or per year			41 5 6
House rent	£8	15	
Burgh assessments		13	
Poor rates		5	5
School rates		2	11
Cost of lighting (gas)	1		
Sundries, say	2		
			12 16 4
Total per year			67 12 0

The wages received average 27*s.* per week, or per year £70 4*s.* The wife does not contribute by her earnings to the house expenses of the family, her time being fully occupied by her attendance to household duties.

Married couples without family usually have two lodgers occupying the single room with bed, the husband and wife living in kitchen; 3*s.* 6*d.* to 5*s.* per week is received for each lodger.

About 65 per cent. of journeymen tailors are married men.

Of the unmarried tailors it may be said that generally two live in one room, at a rent of 3*s.* 6*d.* to 5*s.* each. Cost of their food and lodgings averages about 12*s.* 6*d.* or 13*s.*

There are many tailors married
or of *recruiting*

The proportion of such men amongst journeymen tailors is small, compared with what it was thirty years ago, and is always becoming less. The proportion now is from 30 to 40 per cent.

MARRIED JOURNEYMAN SHOEMAKER.

House and expenses of house of married journeyman shoemaker and his wife and family of, say, two children.

The room and kitchen each contain on an average 1,200 cubic feet of space, say 12 by 12 feet and 10 feet to ceiling. The room furniture consists chiefly of table, four or five chairs, chest of drawers, carpet, bed, and pictures. The kitchen containing table, four or five chairs, dresser, bed, and clock; total cost, say £20. House rent £9 per annum.

Four meals daily are consumed, consisting of breakfast, dinner, tea, and supper. The breakfast is usually oatmeal porridge and milk, also a cup of tea or coffee, with bread and butter. When no porridge is taken ham and eggs, eggs, or fish substituted. Dinner, broth and beef, potatoes, otherwise beef and potatoes, or fish and potatoes, occasionally followed by pudding and milk. Tea in the afternoon, bread and butter, with occasionally cheese or preserves. Supper, cup of coffee, cocoa, or glass of beer, with bread and butter.

Clothing and its cost.

	£	s.	d.
Man.—One suit clothes, £2 10s.; one shirt, 3s.; knitted undershirt, 4s. 6d.; knitted drawers, 3s.; two pairs socks, 4s.; one pair boots, 12s.; hat, 4s. 6d.	4	1	0
Wife.—Dress, £2; mantle or jacket, 25s.; bonnet, 10s.; underclothing, 5s.; two pairs stockings, 4s.; gloves, 3s.; one pair boots, 10s.	4	17	0
Children.—Dress, complete, 30s.; 2 pairs boots, 12s.; underclothing, 5s.; 4 pairs stockings, 4s	2	11	0
All socks and stockings wife's own knitting.	1	00	0

	s.	d.			
Physician's fees	1	6			
Commodities used, per week:					
Bread, 3 loaves	1	6			
Butter, 1½ pounds	4	6			
Beef, 6 pounds		6			
Cheese, 1 pound		6			
Oatmeal, 3 pounds	2	4			
Milk, 2 pints per day		6			
Potatoes, 1 peck		6			
Vegetables	1	0			
Tea, ½ pound		7½			
Sugar, 3 pounds		8			
Coffee or cocoa, ¼ pound			14	1½	
					36 14 6

	£	s.	d.			
Total per week	9	00	0			
Or per year		13	6			
House rent		5	7			
Burgh assessments		3	0			
Poor's rates	1	00	0			
School rate	3	05	0			
Light, gas	5	04	0			
Fuel, coal, firewood, &c					19	11 1
Sundries, 2s. per week						
Total per year					68	14 7

Average wages—piece-work regulated by an agreement between £65 to £78 per year.

MANNER OF LIVING.

The houses in which journeymen shoemakers and other journeymen mechanics are living in large towns like Edinburgh are mostly built in the form of tenements, four stories high, entered by common staircases leading to each flat. Such a flat contains from two to four separate dwelling-places called houses, each house usually containing from two to four rooms. In old houses generally one W. C. serves each flat, but in the newer tenements every dwelling house has such accommodation. Those tenements contain tradesmen of every grade. Shoemakers are found on all the flats; generally they prefer the uppermost flat so as to secure the best light, as many work in their own houses. The shoemaker's house usually consists of two rooms; many are content with one room, and a few have three or more rooms. It is also customary for one shoemaker to rent a large room and relet it to mates for seat room at 6*d.* or 9*d.* per week, which is much taken advantage of by unmarried men and by some married men.

A general description of the manner of living of master mechanics can hardly be given on account of the very great difference of their degree of prosperity, the poorest being obliged to live on the bare necessaries of life, while the most successful ones live surrounded by all the comforts and luxuries which moderate wealth usually procures. Between these extremes there exists of course a great variety in the manner of living.

VALUE OF EMIGRANTS.

No criminals or insane persons are sent from this district to the United States. Nor have persons receiving parochial relief of late years been induced to emigrate; although up to about ten years ago paupers for whom relatives living in the United States had bought and forwarded passage tickets were occasionally so far assisted by poor-house boards as to receive an outfit consisting of a kit for the voyage and some wearing apparel.

Considering the kind of persons emigrating from this district, and indeed from Scotland at large, I am of the opinion that they cannot fail to become a valuable addition to the population of any new country they may settle in, and this opinion is in no manner modified by the circumstance that these emigrants are not easily influenced by the doctrines of communists or so-called socialists.

COLONIAL ENCOURAGEMENT.

The value placed on emigrants from Great Britain has induced several of her colonies to offer assistance to emigrants to their shores in the shape of paying part of their passage money. Thus the Dominion of Canada grants assisted steerage passage to Quebec and Halifax at the following rates, to—

		£	*s.*	*d.*
Agricultural laborers	each	3	0	0
Wives of agricultural laborers	do	3	0	0
Children of agricultural laborers:				
Under 12 years	do	1	10	0
Under 12 months				
Female domestic servants				

The colony of Queensland grants free passages to single female domestic servants and to agricultural labors from seventeen to thirty-five years of age. (These laborers are specially selected in the country districts, and their free passes are all taken up for some time to come.) Besides, persons who have resided in the colony for six months can nominate others, who have been duly proved to be their relatives or friends, for free passages upon the following payments being made in the colony:

Sex.	1 to 12 years.	12 to 40 years.	40 to 55 years.
Male	£1	£2	£4
Female	1	1	4

The nominee must not be over fifty-five years of age. Artisans and mechanics are not eligible for nomination except by special permission of the colonial government.

The colony of Western Australia grants assisted passages at present only to farmers, agriculturists, millers, wheelwrights, and others likely to be useful in country districts, and they must be possessed of some small capital, the amount to be decided in each case by the Crown agents for the colony. As a rule, a married couple will be required to deposit not less than £100, and £25 for each child over twelve years old. The deposit is repaid immediately after their arrival in the colony.

In addition to the above, the Western Australia Land Company are under contract with the colonial government to introduce into the colony a limited number of assisted emigrants belonging to the following classes: Farm laborers, brickmakers, and quarrymen, under forty-five years of age, married couples with their children being preferred. The rates by steamer are fixed at £7 per adult, including £1 for ship's kit; children under twelve years, half price. Number so assisted will not exceed 1,000 per annum.

The colony also grants a limited number of free passages to emigrants nominated to the immigration board by residents in the colony.

Tasmania.—This colony assists immigrants only in the shape of so-called "nominated passages." Residents may nominate their friends in Great Britain at one of the immigration offices in the colony and paying at the same time the following sums: Adult males, not over forty years old, £5 for each person; adult female, same age, £3; married couples not above forty-five years, £6; children between the ages of three and twelve taken at half price; children under three, accompanied by their parents, free. Emigrants nominated in the colony must be approved by the colonial agent-general in London and selected only from the classes of agriculturists, laborers, and domestic servants.

New Zealand.—The agent-general for the company in London will entertain applications for assisted passages for a limited number of farmers and agriculturists, possessed of small capital and intending to take up land in the colony, at the following rates, namely, £10 for each adult and £5 for each child between the ages of one and twelve years. [illegible] to the satisfaction of the agent-general that he [illegible] sides of £50 for each

When the colony of Queensland and one or two other colonies, copying her methods, first began the system of subsidizing emigrants, the assistance was given in a rather indiscriminate manner. In consequence thereof and at an extravagant expense to these colonies their towns were soon overcrowded with people unable to find employment and much suffering and dissatisfaction has been the result.

At the present time greater care is taken in the selection of emigrants; a greater preference is given to those intending to take up land and to cultivate it, and though this change in the selection of emigrants has much diminished the annual accession to the population of the colonies concerned, it has turned out to be a more prudent system than the one formerly pursued.

That the several colonial systems of attracting immigration have to some extent been successful cannot be denied, yet their success has scarcely been such as to justify the expectation of seeing any really great stream of emigration, which otherwise would have gone to other countries, diverted to colonial shores.

Another plan of directing British emigration to the colonies holding out prospects of much greater success is that proposed by the National Association for State-directed Emigration. This plan is likely to be adopted. It is in its main features supported by great numbers of persons in Great Britain as well as in the colonies, distinguished in politics, industry, or commerce. The object of the plan is to secure the carrying out of a systematic emigration of British subjects to British colonies only, and on a self-supporting footing. The plan may be summarized thus:

(1) The Imperial Government to create a permanent colonization board, the representatives in London of co-operating colonies to sit ex-officio on the board. The board to be responsible to Her Majesty's secretary for the colonies.

(2) The Imperial Government to provide the necessary funds by securing a public loan at 2 per cent. or 2½ per cent. interest.

(3) The co-operating colonies to place in the hands of the board tracts of public lands for colonization purposes.

(4) Emigrants to be of two classes: the first to be sent only to colonies where their labor is admittedly in demand; the second class to be planted as farmers on the lands placed in the hands of the board.

(5) Pioneer parties to clear and prepare lands, erect houses, &c., for the farmer emigrants to follow after them. Farmer emigrants found, after arrival, to be inexperienced, to be placed for a time with a pioneer party.

(6) People so settled on farming land to repay after first or second crop in, say, ten annual instalments the cost of their settlement, with interest at 4 per cent. per annum and 4 to 5 per cent. for administration expenses.

The estimated average cost of conveyance of a family (man, wife, and three children) and their maintenance until after arrival of first crop is: For Canada, £100 to £110; for Australia, New Zealand, or Tasmania, £150; for the Cape and Natal, £120 to £130. This is on the assumption that a free railway pass is given from the place of landing to the nearest point to the settlement. The railways in most colonies are property of the government.

No efforts should be made to supersede any existi
between colonial

It is estimated that £2,000,000 would be required the first year and £1,000,000 the second year, and that no further amounts would be required. The whole of these sums to be exclusively devoted to the cost of emigration and colonization, and no part thereof to be used for administrative expenses.

The plan above outlined will, if carried out, benefit greatly and more particularly the large class of poor agricultural laborers of late years thrown out of employment by the rapid introduction of agricultural machinery, and the consolidation of small farms into larger farms. Such consolidation has not, however, taken place to any extent in this consular district. This class also is by training and acquired habits well adapted to form successful farming settlements and to contribute to a healthy growth of the colonies in which they may be planted. But, while this is true, such assisted agricultural emigrants or other assisted emigrants are probably not quite as desirable an addition to the population of new countries as those who defray the expenses of their emigration themselves.

The cause of emigration from Great Britain is to be found in the fact that the country has arrived at a point of economical development where it has produced and continues to produce a surplus even greater of labor than of capital, for which it can find no profitable, or not as profitable, employment at home as in other countries. Both, therefore, surplus labor as well as capital, are transferred to markets where they can be invested to greater advantage.

OSCAR MALMROS,
Consul.

UNITED STATES CONSULATE,
Leith, March 16, 1887.

FISHERY INTERESTS OF THE UNITED STATES AND TRADE WITH CANADA.

REPORTS

FROM THE

CONSULS OF THE UNITED STATES.

No. 77.—APRIL, 1887.

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ON

COMMERCE, MANUFACTURES, ETC.

No. 77.—April, 1887.

NOTE.

The following tables were printed in the Quarterly Report of the Chief of the Bureau of Statistics, Treasury Department, No. 2, 1886–'87. As the subjects to which they relate are of general interest, it has been deemed proper to issue the tables in the consular numbers, and this the Department is enabled to do through the courtesy of the Bureau of Statistics, Treasury Department.

FISH AND FISHERY PRODUCTS.

NT showing the KINDS, QUANTITIES, and VALUES of FISH and of WHALE and FISH OIL IMPORTED into the United States during each Year from 1821 to 1853, inclusive.

	FISH, DRIED, SMOKED, OR PICKLED.										WHALE AND FISH OIL.		VALUE IMPORTED FROM—		
	Dried or smoked.		PICKLED.										All foreign countries.	British N. Am. Poss.	All other countries.
			Salmon.		Mackerel.		Herring and shad.		All other fish.						
	Cwts.(a)	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Gallons.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
...	346	.....	1,048	.....	7	.....	116	.....	418	.....	c13,186	12,223	963
...	712	.....	1,244	.....	387	.....	(b)	.....	95	.....	1,194	.....	c19,255	18,831	424
...	2,969	.....	1,507	.....	67	.....	(b)	.....	268	.....	2,231	.....	c31,914	30,466	1,448
...	1,144	.....	4,574	.....	790	.....	(b)	.....	651	.....	786	.....	c43,411	42,968	443
...	1,628	.....	1,540	.....	242	.....	(b)	.....	778	.....	200	.....	c29,500	29,337	163
...	757	.....	1,013	.....	87	.....	(b)	.....	242	.....	194	.....	c18,841	18,649	192
...	685	.....	1,540	.....	39	.....	(b)	.....	101	.....	238	.....	c24,971	24,537	434
...	434	.....	730	.....	38	.....	(b)	.....	187	.....	4,009	.....	c10,469	9,944	525
...	492	.....	699	.....	95	.....	(b)	.....	138	.....	1,372	.....	c16,182	15,343	839
...	351	.....	1,621	.....	391	.....	(b)	.....	715	.....	96	.....	c27,624	27,001	623
...	1,363	.....	2,315	.....	4,552	.....	(b)	.....	454	.....	456	.....	c49,421	47,686	1,735
...	1,359	.....	2,104	.....	32	.....	(b)	.....	264	.....	421	.....	c28,584	28,318	266
...	6,068	.....	1,652	.....	20	.....	(b)	.....	840	.....	6,571	.....	c45,649	42,714	2,935
...	824	7,795	2,009	22,616	223	691	(b)	(b)	1,515	11,838	34	15	42,955	35,562	7,393
...	1,379	13,425	2,546	28,606	8,153	29,316	(b)	(b)	3,144	15,435	4,088	1,497	88,279	82,172	6,107
...	1,872	12,178	2,976	35,884	6,037	36,470	(b)	(b)	5,094	30,774	1,421	588	115,894	90,611	25,283
...	2,043	13,528	3,543	50,035	1,256	9,089	(b)	(b)	3,111	24,828	767	564	98,044	84,081	13,963
...	2,015	14,111	3,790	58,791	182	1,595	(b)	(b)	3,521	21,775	781	299	96,571	90,364	6,207
...	4,295	24,303	5,338	73,768	7,046	60,374	(b)	(b)	14,489	71,489	d400,151	d112,821	342,755	219,934	122,821
...	4,061	19,355	4,860	78,232	11,823	114,590	(b)	(b)	8,810	48,979	37,236	14,196	275,352	257,881	17,471
...	2,433	19,262	4,951	72,317	10,887	116,459	(b)	(b)	2,175	14,149	6,705	2,849	225,036	215,029	10,007
...	1,265	5,186	4,693	54,679	8,194	58,812	(b)	(b)	1,791	8,754	3,573	1,102	128,533	122,767	5,766
...ths)	188	1,411	2,640	26,993	12,334	57,457	e399	e2,048	1,391	3,704	771	258	91,871	89,183	2,688
...	360	3,067	(b)	(b)	(b)	(b)	(b)	(b)	43,542	261,013	297	147	264,227	261,349	2,878
...	1,297	9,646	(b)	(b)	(b)	(b)	(b)	(b)	30,506	280,519	(f)	(f)	290,165	283,178	6,987
...	875	9,319	(b)	(b)	(b)	(b)	(b)	(b)	31,402	279,515	(f)	(f)	288,834	284,584	4,250
...	8,274	25,711	(b)	80,944	122,594	535,128	13,961	29,761	91,113	452,357	11,706	3,539	481,607	470,107	11,500
...	51,826	127,799	7,633	81,200	138,505	465,286	10,868	37,037	23,344	71,774	84,077	16,863	832,508	816,687	15,821
...	22,520	43,709	8,244	85,447	75,491	335,736	21,714	54,449	5,363	13,097	39,669	12,864	645,917	615,554	30,363
...	25,115	45,961	8,721	85,705	102,638	549,525	26,696	73,584	13,300	38,451	44,765	18,493	561,125	522,942	38,183
...	14,705	27,769	7,964	96,526	78,334	327,613	06,584	159,027	21,016	64,022	3,220	1,281	782,751	765,489	17,262
...	49,299	55,171	7,947	94,341	54,411	329,233			20,083	65,993	8,803	3,847	622,734	603,534	19,200
...	97,507	214,016	7,235						31,153	90,143	g541,332	g255,781	1,142,541	1,071,243	71,298

istics of imports into the United States include the products of the American whale fisheries.
842, inclusive, "quintals." *b* Included under "All other pickled fish." *c* Exclusive of whale and fish oil, the value of which cannot be stated. *d* Gallons
n South Seas and Pacific Ocean. *e* Herring only, shad being included under "All other pickled fish." *f* Not stated. *g* Gallons 487,829, $225,795 from
rican Possessions.

52.—STATEMENT showing the QUANTITIES and VALUES of FISH and FISHERY PRODUCTS IMPORTED into the United States, distinguishing between IMPORTS free of duty under Reciprocity Treaty of June 5, 1854, and IMPORTS other than under said treaty, from 1854 to 1868, inclusive.*a*

IMPORTS, DUTIABLE, NOT UNDER RECIPROCITY TREATY.														
Herring.		Mackerel.		Salmon.		Fish, dried or smoked.		All other fish in barrels.		All other fish not in barrels.		Whale and other fish oil.		Sardines, in oil.	TOTAL IMPORTS NOT UNDER RECIPROCITY TREATY.
Barrels.	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Cwts.*	*Dollars.*	*Barrels.*	*Dollars.*	*Pounds.*	*Dollars.*	*Gallons.*	*Dollars.*	*Dollars.*	*Dollars.*
*b*61, 485	158, 348	62, 499	477, 131	6, 810	94, 335	76, 074	181, 469	41, 652	149, 824	.....	.....	243, 334	116, 570	.....	1, 177, 677
*b*16, 902	129, 938	80, 990	432, 431	6, 316	85, 796	111, 913	265, 934	26, 050	86, 231	.....	.....	103, 844	36, 650	.....	1, 036, 980
*b*3, 587	22, 808	81	138	685	3, 106	65, 968	158, 233	454	2, 658	.....	.....	18, 430	8, 044	.....	194, 987
*b*8, 831	49, 213	20	144	700	3, 949	43, 994	96, 607	706	4, 633	.....	.....	36, 558	17, 693	.....	172, 239
3, 892	18, 905	45	369	337	2, 446	41, 151	111, 709	980	5, 209	.....	.....	37, 437	18, 627	274, 137	431, 402
*b*7, 756	39, 001	5, 067	6, 661	1, 127	6, 763	40, 450	107, 615	1, 763	8, 673	.....	.....	7, 220	3, 504	251, 278	423, 495
5, 489	38, 308	58	258	4	111	66, 417	149, 217	757	4, 990	.....	.....	185, 903	41, 903	299, 679	534, 466
5, 053	28, 367	110	695	132	1, 110	53, 448	120, 462	941	6, 262	6, 650	271	73, 325	29, 662	226, 624	413, 453
*c*2, 595	22, 400	.....	.....	*d*58	460	.....	.....	.....	.....	1, 152, 934	26, 747	26, 933	14, 428	186, 417	250, 452
*c*3, 332	29, 037	.....	.....	*d*88	419	.....	.....	.....	.....	3, 071, 842	77, 343	42, 808	17, 184	383, 223	507, 206
*c*4, 342	34, 569	.....	.....	*d*72	956	.....	.....	.....	.....	1, 702, 166	45, 262	34, 097	16, 970	504, 079	601, 836
4, 107	38, 394	10	152	13	188	.....	.....	11	238	740, 973	20, 364	*e*11, 397	6, 427	304, 713	370, 476
8, 842	81, 761	5, 312	48, 121	786	4, 317	.....	.....	6, 435	30, 423	4, 252, 948	103, 419	*e*178, 496	117, 409	937, 920	1, 323, 370
102, 929	396, 948	77, 503	675, 986	6, 670	129, 051	.....	.....	24, 861	154, 940	11, 345, 975	311, 349	300, 152	183, 184	478, 619	2, 330, 077
62, 659	291, 435	41, 656	364, 439	6, 546	90, 287	.....	.....	1, 4247	65, 441	10, 498, 548	306, 948	125, 906	68, 509	471, 707	1, 658, 766

a Products of American fisheries not included. *b* Including shad. *c* Including mackerel. *d* Including all other in barrels. *e* Including seal oil.

TIES and VALUES of FISH and FISHERY PRODUCTS IMPORTED into the United States from 1854 to 1868, inclusive *a*—Continued.

IMPORTS, FREE OF DUTY, FROM BRITISH AMERICAN PROVINCES, UNDER THE PROVISIONS OF THE RECIPROCITY TREATY WITH GREAT BRITAIN, OF JUNE 5, 1854.												TOTAL FREE AND DUTIABLE.
Fish, dried or smoked.		Fish, pickled.		All other fish in barrels.		Fish of all kinds not in barrels.		Whale and fish oil.		Other products of fisheries.	TOTAL IMPORTS UNDER RECIPROCITY TREATY.	
Barrels.	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Pounds.*	*Dollars.*	*Gallons.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
												1, 177, 677
		1, 038	5, 582			256, 892	6, 211	1, 458	932	5, 408	18, 133	1, 055, 113
		240, 585	1, 336, 268			19, 569, 744	528, 788	249, 189	179, 346	29, 795	2, 074, 197	2, 269, 184
		226, 064	1, 162, 933			13, 289, 717	470, 416	364, 888	275, 182	62, 365	1, 970, 806	2, 143, 135
		235, 096	1, 172, 916			10, 446, 069	341, 855	269, 059	160, 607	182, 898	1, 858, 276	2, 289, 678
		278, 774	1, 328, 969			15, 244, 423	422, 505	558, 350	314, 830	156, 559	2, 222, 863	2, 646, 358
		301, 917	1, 389, 852			8, 847, 099	313, 491	428, 660	230, 598	256, 417	2, 190, 358	2, 724, 824
c3, 492, 837	100, 268	202, 976	945, 603			10, 085, 050	314, 933	245, 236	131, 816	305, 192	1, 797, 812	2, 211, 265
c325, 472	4, 835	179, 076	678, 093	4, 386	6, 265	4, 444, 275	132, 502	110, 665	64, 106	192, 272	1, 078, 072	1, 328, 535
5, 475	26, 002	94, 220	384, 011	31, 447	83, 618	4, 872, 952	144, 305	206, 124	120, 617	198, 613	957, 166	1, 464, 372
7, 533	6, 054	152, 327	781, 090	51, 233	50, 467	6, 141, 306	234, 126	90, 570	74, 070	331, 348	1, 477, 155	2, 078, 991
9, 789	18, 787	241, 412	1, 510, 257	45, 691	71, 782	3, 914, 007	197, 932	37, 766	23, 538	391, 088	2, 213, 384	2, 583, 860
(*e*)	28, 784	(*e*)	1, 527, 352	(*e*)	28, 062	(*e*)	326, 715	(*e*)	341, 613	799, 213	3, 051, 739	4, 375, 109
												2, 330, 077
												1, 658, 766

of American fisheries not included.
ended June 30, 1855.

c Pounds.
d July 1, 1865, to March 17, 1866.

e Quantities not stated in returns of collectors of customs.

STATEMENT showing the QUANTITIES and VALUES of FOREIGN FISH and FISHERY PRODUCTS EXPORTED from the United States, from 1854 to 1868, inclusive.

NE	Herring.		Mackerel.		Salmon.		Fish dried or smoked.		All other fish in barrels.		All other fish not in barrels.		Sardines in oil.	Whale and other fish oil.		TOTAL.
	Barrels.	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Cwts.*	*Dollars.*	*Barrels.*	*Dollars.*	*Pounds.*	*Dollars.*	*Dollars.*	*Gallons.*	*Dollars.*	*Dollars.*
..	a12,159	48,774	13,898	95,479	219	2,967	50,207	171,975	8,970	59,718	.....	.....	.....	37,336	22,836	381,749
.	a1,880	7,300	14,556	83,156	334	4,704	51,180	191,322	17,942	64,199	.....	.....	.....	4,215	3,469	354,150
..	a10	45	9,374	50,035	144	2,027	42,985	170,841	11,003	48,929	.....	.....	.....	12,843	7,626	279,503
..	a106	962	6,897	48,770	75	600	44,405	152,689	12,608	59,564	.....	.....	.....	908	1,410	263,995
.	1,156	4,153	3,130	26,009	362	2,799	31,390	113,564	15,288	71,098	.....	.....	11,618	4,950	5,518	234,759
.	1,202	3,816	2,717	20,980	714	4,118	32,844	122,446	8,824	34,340	.....	.....	6,405	11,169	8,561	200,666
.	1,810	5,557	1,100	7,291	40	450	40,143	142,805	8,225	37,102	.....	.....	10,101	128,948	89,876	293,182
	a3,868	14,982	2,321	15,171	30	130	33,453	109,897	5,138	23,710	184,585	6,183	13,036	4,630	5,989	189,098
	15	78	700	3,443	.....	.....	.....	.....	942	4,714	1,028,150	31,934	8,328	46,598	7,579	56,076
	.....	.....	300	1.840	.....	.....	.....	.....	304	1,372	2,764,280	113,688	11,870	4,981	2,740	131,710
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,416,757	79,175	16,747	21,723	24,753	120,675
	40	246	.....	.....	.....	.....	.....	.....	.....	.....	687,691	54,547	40,780	34,491	48,577	144,150
	2,432	13,138	615	7,872	7	170	.....	.....	.....	.....	1,436,598	97,514	10,325	.....	.....	129,019
	16,938	104,005	7,807	89,748	485	12,844	.....	.....	2,717	23,446	3,045,994	171,900	9,067	36,954	18,941	429,951
	12,912	74,999	7,661	72,783	172	2,878	.....	.....	1,944	15,132	3,841,806	155,932	16,592	10,512	15,574	353,890

a Including shad.

r showing the QUANTITIES and VALUES of IMPORTED FISH and FISHERY PRODUCTS ENTERED ON in the United States, together with the Rates and Amounts of Duty Collected thereon, from 1869 re.

HERRING.								MACKEREL.				
Pickled.					Dried or smoked.			Free of duty under reciprocity treaty.		$2 per barrel.		
e of duty under reciprocity treaty.		$1 per barrel.			Free of duty under reciprocity treaty.							
ntities.	Values.	Quantities.	Values.	Duties.	Quantities.	Values.	Duties.	Quantities.	Values.	Quantities.	Values.	Duties.
arrels.	Dollars.	Barrels.	Dollars.	Dollars.	Boxes.	Dollars.	Barrels.	Dollars.	Barrels.	Dollars.	Dollars.	
		91,567.50	425,212 90	91,567 50					27,480.87	306,695 57	54,937 75	
		87,283.58	398,595 90	87,283 58					28,480.37	291,527 50	56,960 75	
		62,021.90	356,759 69	62,021 91					28,478.50	309,074 65	56.975 02	
		62,474.88	332,706 84	62,474 88					39,572.12	247,700 75	79,144 25	
		63,497.50	352,235 49	63,497 50					70,651.35	523,577 25	141,302 70	
		29,235.96	242,507 33	29,235 96					1,496.75	13,325 00	2,993 50	
3,501.75	191,492 23	20,272.87	216,567 00	20,272 87					41	524 00	82 00	
7,917.75	300,406 03	18,276.99	186,215 00	18,276 99	205,819	34,669 59	89,376.75	793,764 00	16	70 00	32 00	
9,042	306,947 38	14,907.66	190,431 00	14,907 66	309,549	63,223 45	78,091.25	586,825 00	8.50	105 00	17 00	
1,791.50	207,090 55	15,606.76	180,912 00	15,606 76	307,190	57,560 40	76,582.85	695,847 00	6	67 00	12 00	
9,701.50	250,920 45	19,226.10	190,218 00	19,226 10	316,570.50	39,459 42	44,169.50	373,792 38	2.63	19 05	5 25	
7,810.50	193,276 25	25,954.88	287,177 00	25,954 88	421,834	52,715 16	101,995	907,013 00	12	127 00	24 00	
8,604	158,443 00	30,489.60	288,056 25	30,489 60	382,471	46,974 78	101,450	650,048 13	8.50	98 50	17 00	
3,497	231,285 40	36,381.81	376,335 00	36,381 81	508,615	69,986 00	112,385.50	492,807 40				
7,918	273,564 50	48,995.19	496,119 00	48,995 19	676,843	92,604 00	120,352.50	615,063 10			22 25	
1,444.50	418,314 25	38,526.47	484,406 00	38,526 47	1,088,361	134,377 85	57,868.25	394,322 50	11.13	149 00	31 10	
6,492.50	492,409 54	49,088.09	543,697 68	49,088 09	656,778	120,013 60	52,062	427,327 00	15.55	113 00	43 50	
134,730	314,551 20	92,659.58	617,035 00	92,659 58	a8,330,641	137,975 00	88,215	873,567 35	21.75	100 00		
					ac10,441,355	129,034 46	92,125	701,930 00	31,847.56	222,716 00	63,695 13	
					a4,246,970	b64,456 50						

Duty collected on quantity, $21,234.85.

b 50 cents per 100 pounds in 1866.

QUANTITIES and VALUES of IMPORTED FISH and FISHERY PRODUCTS ENTERED for CONSUMPTION in the United States, &c., from 1869 to 1886, inclusive—Continued.

ING JUNE 30—	FRESH FISH, FOR DAILY CONSUMPTION.		FISH, IN OIL OR PRESERVED, NOT OTHERWISE SPECIFIED.		OTHER PICKLED, IN BARRELS.					OTHER, NOT IN BARRELS, SOLD BY WEIGHT.	
	Free of duty.		30 per cent.		Free of duty under reciprocity treaty.		$1.50 per barrel, 1869–1883; $2 per barrel, 1884–1886.			Free of duty under reciprocity treaty.	
	Quantities.	Values.	Values.	Duties.	Quantities.	Values.	Quantities.	Values.	Duties.	Quantities.	Values.
	Pounds.	*Dollars.*	*Dollars.*	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Dollars.*	*Pounds.*	*Dollars.*
1869	.....	.....	30,861 24	9,258 37	.....	.....	9,732	65,538 95	14,598 00	.....	.....
1870	.....	.....	30,465 00	9,139 50	.....	.....	9,960.50	69,796 92	14,940 19	.....	.....
1871	.....	84,742 59	34,173 23	10,251 97	.....	.....	7,002.75	52,704 50	10,504 13	.....	.....
1872	7,647,482	242,675 05	40,041 15	12,012 34	.....	.....	7,454.87	36,363 00	7,132 31	.....	.....
1873	8,386,624	279,319 70	27,175 01	8,153 11	.....	.....	4,555.16	31,683 10	6,832 75	.....	.....
1874	9,332,878	297,532 46	15,810 79	4,743 23	8,719	47,466 25	1,051.38	7,135 25	1,577 06	6,104,890	152,577 94
1875	14,887,205	346,315 00	27,117 20	8,135 16	8,694.50	56,172 00	698.67	4,701 15	1,048 00	7,747,452	241,055 00
1876	12,327,015	274,091 00	27,490 00	8,247 00	8,243	50,374 00	608.75	3,798 30	913 13	6,360,736	210,130 94
1877	13,453,033	315,858 10	15,996 00	4,798 80	16,004.25	90,796 00	385.25	2,458 00	577 88	5,661,597	229,730 00
1878	9,914,296	342,729 00	15,849 00	4,754 70	4,974.62	38,520 00	428	2,261 25	642 00	10,294,061	305,007 25
1879	7,949,063	283,734 42	13,835 00	4,150 50	6,839.50	43,497 00	335.50	1,786 00	503 25	11,446,022	353,330 41
1880	10,780,051	321,160 96	14,646 50	4,393 95	11,428.50	54,670 00	515.25	2,784 00	772 88	14,295,884	406,037 25
1881	13,066,101	376,722 34	21,056 12	6,316 83	13,485.50	61,081 00	2,352.58	14,168 05	3,528 88	22,409,945	647,436 00
1882	15,321,009	474,528 73	31,362 16	9,408 65	9,838	59,467 00	2,964	20,543 25	4,446 00	22,825,781	705,748 53
1883	15,860,390	572,533 25	24,271 89	7,281 57	13,835.50	85,766 54	3,701.25	26,694 00	5,551 88	24,234,780	1,023,563 00
1884	19,926,286	708,170 20	35,913 93	10,774 24	14,195.50	77,525 00	2,009.46	15,877 71	4,018 92	27,391,485	1,014,544 44
1885	19,651,561	736,764 50	22,387 39	6,716 21	10,973	46,524 00	2,011.46	14,411 00	4,022 91	32,755,345	955,997 50
1886	21,006,699	668,887 40	19,982 11	5,994 66	.....	.....	2,929.78	21,009 00	5,859 56	.....	.....

ES and VALUES of IMPORTED FISH and FISHERY PRODUCTS ENTERED for CONSUMPTION in the United States, &c., from 1869 to 1886, inclusive—Continued.

THER, NOT IN BARRELS, SOLD BY WEIGHT.			OYSTERS, DRIED.		PREPARED, IN CANS.			SALMON, PICKLED.				
50 cents per 100 pounds.			20 per cent.		Free of duty under reciprocity treaty.	35 per cent.		Free of duty under reciprocity treaty.		$3 per barrel, 1869–1883; $2 per barrel, 1884–1886.		
Quantities.	Values.	Duties.	Values.	Duties.	Values.	Values.	Duties.	Quantities.	Values.	Quantities.	Values.	Duties.
Pounds.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Dollars.*
8,943,318	287,934 45	44,716 59	3,623 00	724 60		2,457 00	859 95			8,454.75	110,591 00	25,364 25
7,209,130	263,981 63	36,045 69	4,260 00	852 00		3,525 00	1,233 75			10,619.76	137,054 50	31,859 30
6,762,520	249,690 78	33,812 61	6,803 00	1,360 60		6,610 88	2,313 81			9,356.05	145,264 10	28,068 15
3,558,990	130,038 99	17,794 95	7,590 00	1,518 00		31,429 20	11,000 22			5,344.41	80,171 00	16,033 25
5,128,404	190,692 88	25,642 05	5,068 00	1,013 60		57,133 20	19,996 62			4,578.50	73,230 75	13,735 50
1,089,319	55,095 09	5,446 57	8,237 00	1,647 40		23,760 95	8,316 35			1,200.50	15,453 00	3,601 50
479,420	34,457 93	2,397 10	11,008 61	2,201 72		20,931 00	7,325 85			81.50	1,357 00	244 50
358,201	24,264 13	1,791 03	13,447 00	2,689 40		14,328 26	5,014 91			2.75	32 00	8 25
690,856	48,352 72	3,454 32	8,127 00	1,625 40		7,271 69	2,545 10			.50	9 00	1 50
785,188	50,261 85	3,925 95	2,606 00	521 20	220,444 00	4,335 72	1,517 51	3,674.75	50,173 00	173	1,910 00	519 00
613,656	42,055 92	3,068 28	8,846 90	1,769 38	368,216 20	3,068 78	1,074 05	4,730.25	61,583 00	252.50	2,232 00	757 50
645,869	38,222 15	3,229 35	12,515 47	2,503 10	82,484 01	4,495 15	1,573 31	4,197	49,938 00	26.50	155 00	79 50
1,200,026	55,784 46	6,000 17	21,942 28	4,388 46	19,223 76	7,881 24	2,758 43	5,437	61,724 00	9	68 00	27 00
1,364,770	73,313 70	6,823 85	22,820 17	4,564 04	20,731 21	11,806 34	4,132 22	8,423	107,399 00	125.25	1,400 00	375 75
2,501,701	111,864 32	12,508 55			51,983 65	18,879 99	6,608 02	9,333.50	106,131 00	36	291 00	108 00
3,341,276	126,505 86	16,706 38			82,238 79	39,437 54	9,859 38	8,231	118,104 00	43.38	438 00	86 75
4,414,798	157,767 54	22,074 04			147,411 90	31,504 32	7,876 09	5,838.50	91,314 00	9.77	93 00	19 55
16,400,410	460,090 71	82,002 14			313,458 00	52,063 02	13,015 75	4,626	85,078 00	4,397.55	46,073 00	8,795 10
					328,532 00			4,689	93,348 00			
					207,445 15			6,403.50	100,508 00			
					365,719 00			5,611.50	72,907 00			
					252,054 00							

QUANTITIES and VALUES of IMPORTED FISH and FISHERY PRODUCTS ENTERED for CONSUMPTION in the United States, &c., from 1869 to 1886, inclusive—Continued.

ING JUNE 30—	SALMON, DRIED OR SMOKED.		SARDINES AND ANCHOVIES, PREPARED IN OIL, OR OTHERWISE.								
			In all forms.		Whole boxes, 5 x 4 x 3½ inches.			Half boxes, 5 x 4 x 1⅝ inches.			
	Free of duty under reciprocity treaty.		50 per cent.		15 cents per box; 10 cents per box after 1883.			7½ cents per box; 5 cents per box after 1883.			
	Quantities.	Values.	Values.	Duties.	Quantities.	Values.	Duties.	Quantities.	Values.	Duties.	
	Pounds.	*Dollars.*	*Dollars.*	*Dollars.*	*Boxes.*	*Dollars.*	*Dollars.*	*Boxes.*	*Dollars.*	*Dollars.*	
			640,159 40	320,079 70							
			980,989 00	490,494 50							
			912,555 47	456,277 74							
			683,094 61	341,547 31							
			986,769 11	493,384 58							
		4,703 00	886,677 02	443,338 51							
	58,096.50	8,560 00	522,980 20	261,490 10	1,662	552 00	249 30	100,509	16,027 00	7,538 18	
	9,240	970 00	53,790 00	26,895 00	5,382	2,253 00	807 30	412,374	64,885 00	30,928 06	
	37,069	3,704 00	411 00	205 50	5,813	2,338 00	871 95	264,285	48,044 00	19,821 38	
	9,354	1,082 00			7,182	2,615 00	1,077 30	184,539	35,801 00	13,840 43	
	277,158	11,977 00			2,424	1,010 00	363 60	117,320	23,865 00	8,799 01	
	132,775	4,785 00			4,792	1,805 00	718 80	263,728	52,548 50	19,779 60	
	365	29 00			2,843	982 00	426 45	131,532.50	31,542 60	9,864 94	
					2,554	1,351 00	383 10	54,340	13,434 60	3,850 50	
	690,602	35,086 00			2,446	1,447 00	366 90	180,415	47,901 00	13,531 13	
	a	*a*			5,515	2,421 00	551 50	503,334	114,403 00	25,166 70	
	a	*a*			7,910	2,834 00	791 00	235,526	51,130 00	11,776 30	
	a	*a*			5,279	2,248 00	527 90	241,356	55,250 00	12,067 80	

a Included with "Other not in barrels, sold by weight."

TIES and VALUES of IMPORTED FISH and FISHERY PRODUCTS ENTERED for CONSUMPTION in the United States, &c., from 1869 to 1886, inclusive—Continued.

UNE 30—	SARDINES AND ANCHOVIES, PREPARED IN OIL, OR OTHERWISE.					SHELL-FISH AND TURTLES.	SOUNDS OR TONGUES.		OILS.	
	Quarter boxes, 4¾ x 3½ x 1½ inches.			In any other form.					Cod-liver, brown or crude.	
	4 cents per box; 2½ cents per box after 1883.			60 per cent. 1875–1883; 40 per cent., 1884–1886.		Free of duty.	20 per cent.		Free of duty under reciprocity treaty.	
	Quantities.	Values.	Duties.	Values.	Duties.	Values.	Values.	Duties.	Quantities.	Values.
	Boxes.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Gallons.*	*Dollars.*
							1,039 00	207 80		
							2,989 24	597 84		
						a185 00	93 00	18 60		
							2,038 00	407 60		
						2,181 00	b2 00	60		
						3,330 43			88,387	54,850 00
						55,084 19			222,552	134,585 00
						121,144 97			94,730	59,394 50
	945,585	67,660 00	37,823 40	3,486 00	2,091 60	2,347 15			129,263	81,607 00
	6,297,945	506,149 80	251,917 80	14,592 00	8,755 20	1,727 55			284,974	166,348 00
	7,985,401	661,597 25	319,416 04	11,018 25	6,610 95	3,944 25			142,559	65,889 00
	7,175,982.25	631,736 03	287,039 29	11,521 21	6,912 72	2,229 25			264,999	113,890 00
	9,875,648	798,562 53	395,025 92	9,864 00	5,918 40	7,012 85			371,886	191,433 00
	13,378,244	1,048,535 50	535,129 76	12,772 00	7,663 20	2,726 85			263,651.50	133,858 16
	10,028,535	913,057 44	401,141 40	10,439 75	6,263 85	9,699 38	36 60	7 32		
	8,405,836	767,351 58	336,233 45	14,140 86	8,484 52		23 00	4 60	171,007	117,666 23
						16,695 95	c212 00	21 20		
	6,250,832	710,311 31	250,033 28	13,970 00	8,382 00		c65 00	6 50	379,853	225,451 00
						30,471 71			161,209	96,230 00
	9,501,849.50	837,673 89	237,546 27	22,256 00	8,902 40	55,469 26				
	6,805,187	599,518 35	170,129 68	23,586 00	9,434 40	64,632 10				
	7,418,010	677,918 75	185,450 27	27,462 00	10,984 80					

a Dutiable at 20 per cent

b Dutiable at 30 per cent.

c Fish eggs at 10 per cent.

ANTITIES and VALUES of IMPORTED FISH and FISHERY PRODUCTS ENTERED for CONSUMPTION in the United States, &c., from 1869 to 1886, inclusive—Continued.

OILS.								RECAPITULATION OF VALUES AND DUTIES COLLECTED.			
Cod-liver, brown or crude.			Whale or fish, not otherwise specified.								
20 per cent., 1869-1883; 25 per cent., 1884-1886.			Free of duty under reciprocity treaty.		20 per cent., 1869-1883; 25 per cent., 1884-1886.			TOTAL FREE OF DUTY.[b]	TOTAL DUTIABLE.	TOTAL FREE AND DUTIABLE.	TOTAL DUTY COLLECTED.
Quantities.	Values.	Duties.	Quantities.	Values.	Quantities.	Values.	Duties.				
Gallons.	*Dollars.*	*Dollars.*	*Gallons.*	*Dollars.*	*Gallons.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
.....	1,234 00	246 80	.....	.....	465,273.50	182,702 64	36,540 53	.....	2,054,426 15	2,054,426 15	598,377 24
.....	73,020 00	14,604 00	.....	.....	87,837	44,218 48	8,843 69	.....	2,299,786 17	2,299,786 17	742,764 39
.....	20,476 00	4,095 20	.....	.....	146,796.50	82,757 56	16,551 51	84,742 59	2,174,419 26	2,259,161 85	681,742 65
249,934	114,870 00	22,974 00	.....	.....	95,941	43,379 84	8,675 98	244,856 05	1,748,636 38	1,993,492 43	580,557 09
198,855.50	94,861 80	18,972 36	.....	.....	62,447.50	24,923 88	4,984 78	282,650 13	2,369,874 47	2,652,524 60	798,020 55
93,372	50,745 00	10,149 00	72,122	37,094 00	47,350	20,184 23	4,036 83	1,939,850 66	1,335,761 66	3,275,612 32	514,452 11
14,027	7,734 00	1,546 80	55,626.50	27,059 00	42,069	15,870 00	3,174 00	2,315,144 65	948,201 48	3,263,346 13	355,066 26
14,068	12,525 00	2,505 00	42,938	42,214 30	29,502	13,899 25	2,779 85	1,832,298 68	935,300 85	2,767,599 03	361,073 24
13,732	15,434 00	3,086 80	19,620	10,982 00	26,711	11,237 00	2,247 40	1,435,694 76	1,028,149 91	2,463,844 67	381,251 68
12,275	13,186 00	2,637 20	25,907	10,036 00	30,440	10,908 41	2,181 68	2,206,445 32	969,491 47	3,175,936 79	342,291 94
29,617	28,782 00	5,756 40	42,752	15,966 00	31,603	14,820 54	2,964 10	1,825,036 89	1,192,724 82	2,957,761 71	448,133 56
50,911	38,551 00	7,710 20	141,440	56,706 00	34,138	12,053 78	2,410 75	1,885,841 25	1,522,719 48	3,408,560 73	611,209 56
44,771	45,330 00	9,066 00	205,407	102,206 00	65,100	22,915 10	4,583 02	2,559,312 59	1,423,894 98	3,983,207 57	482,986 67
38,487	28,705 00	5,741 00	112,717	48,850 00	62,405	27,976 23	5,595 25	2,632,952 65	1,389,698 60	4,022,651 25	426,251 88
47,709	41,605 00	8,321 00	155,466	85,987 00	108,916	34,766 70	6,953 34	3,324,833 82	1,551,325 38	4,876,158 20	373,252 95
2,919	3,270 00	817 50	48,445	18,291 00	306,853	72,685 30	18,171 33	3,886,358 39	1,755,466 23	5,641,824 62	371,165 44
35,470	33,647 00	8,411 75	62,821	23,938 00	116,229	30,874 65	7,718 66	3,499,064 92	1,511,550 93	5,010,615 85	298,102 18
15,454	67,652 00	16,913 00	.....	.....	65,584	20,216 00	5,054 00	985,573 50	2,354,172 09	3,339,745 59	524,254 54

a crude and refined cod-liver oil.

b Free under reciprocity treaty except "fresh for daily consumption," for value of which see page 411.

T showing the QUANTITIES and VALUES of FISH and FISH OIL IMPORTED into the United States under the RECIPROCITY TREATY with the Dominion of Canada, Newfoundland, &c., and ENTERED TION; together with the rates of duty in force under the general tariff laws on fish and fish oil not r said treaty, and the estimated amounts of duty remitted, during each Year ending June 30, from 1874 ve.

E 30—	HERRING, PICKLED.				HERRING, DRIED OR SMOKED.				MACKEREL.			
	Quantities.	Values.	Rate of duty per barrel.	Estimated duties remitted.	Quantities.	Values.	Rate of duty per pound.	Estimated duties remitted.	Quantities.	Values.	Rate of duty per barrel.	Estimated duties remitted.
	Barrels.	*Dollars.*	*Dollars.*	*Dollars.*	*Boxes.*	*Dollars.*	*Cents.*	*Dollars.*	*Barrels.*	*Dollars.*	*Dollars.*	*Dollars.*
.....	53,501.75	191,492 23	1 00	53,501 75	205,819	34,669 59		10,290 95	89,376.75	793,764 00	2 00	178,753 50
.....	77,917.75	300,406 03	1 00	77,917 75	309,549	63,223 45		15,477 45	78,091.25	586,825 00	2 00	156,182 50
.....	89,042	306,947 38	1 00	89,042 00	307,190	57,560 40		15,359 50	76,582.85	695,847 00	2 00	153,165 70
.....	61,791.50	207,090 55	1 00	61,791 50	316,570.50	39,459 42		15,828 50	44,169.50	373,792 38	2 00	88,339 00
.....	79,701.50	250,920 45	1 00	79,701 50	421,834	52,715 16		21,091 70	101,995	907,013 00	2 00	203,990 00
.....	57,810.50	193,276 25	1 00	57,810 50	382,471	46,974 78		19,123 50	101,450	650,048 13	2 00	202,900 00
.....	48,604	158,443 00	1 00	48,604 00	508,615	69,986 00		25,430 75	112,385.50	492,807 40	2 00	224,771 00
.....	63,497	231,285 40	1 00	63,497 00	676,843	92,604 00		33,842 15	120,352.50	615,063 10	2 00	240,705 00
.....	77,918	273,564 50	1 00	77,918 00	1,088,361	134,377 85		54,418 05	57,868.25	394,322 50	2 00	115,736 50
.....	101,444.50	418,314 25	1 00	101,444 50	656,778	120,013 60		32,838 90	52,062	427,327 00	2 00	104,124 00
.....					*Pounds.*							
.....	126,492.50	492,409 54	1 00	126,492 50	8,330,641	137,975 00		41,653 21	88,215	873,567 35	2 00	176,430 00
.....	134,730	314,551 20	1 00	134,730 00	10,441,355	129,034 46		52,206 77	92,125	701,930 00	2 00	184,250 00

IMPORTS of FISH and FISH OILS into the United States under RECIPROCITY TREATY, &c., from 1874 to 1885—Continued.

OTHER, PICKLED, IN BARRELS.				OTHER, NOT IN BARRELS, SOLD BY WEIGHT.				PREPARED IN CANS.			SALMON, PICKLED.			
Quantities.	Values.	Rate of duty per barrel.	Estimated duties remitted.	Quantities.	Values.	Rate of duty per 100 pounds.	Estimated duties remitted.	Values.	Rate of duty.	Estimated duties remitted.	Quantities.	Values.	Rate of duty per barrel.	Estimated duties remitted.
arrels.	*Dollars.*	*Dollars.*	*Dollars.*	*Pounds.*	*Dollars.*	*Cents.*	*Dollars.*	*Dollars.*	*P. cent.*	*Dollars.*	*Barrels.*	*Dollars.*	*Dollars.*	*Dollars.*
719	47,466 25	1 50	13,078 50	6,104,890	152,577 94	50	30,524 45	220,444 00	35	77,155 40	3,674.75	50,173 00	3 00	11,024 25
694. 50	56,172 00	1 50	13,041 75	7,747,452	241,055 00	50	38,737 26	368,216 00	35	128,875 60	4,730.25	61,583 00	3 00	14,190 75
243	50,374 00	1 50	12,364 50	6,360,736	210,130 94	50	31,803 68	82,484 01	35	28,869 40	4,197	49,938 00	3 00	12,591 00
004. 25	90,796 00	1 50	24,006 37	5,661,597	229,730 00	50	28,307 98	19,223 76	35	6,728 32	5,437	61,724 00	3 00	16,311 00
74. 62	38,520 00	1 50	7,461 93	10,294,061	305,007 25	50	51,470 32	20,731 21	35	7,255 93	8,423	107,399 00	3 00	25,269 00
39. 50	43,497 00	1 50	10,259 25	11,446,022	353,330 41	50	57,230 11	51,983 65	35	18,194 28	9,333. 50	106,131 00	3 00	28,000 50
28. 50	54,670 00	1 50	17,142 75	14,295,884	406,037 25	50	71,479 42	82,238 79	35	28,783 57	8,231	118,104 00	3 00	24,693 00
85. 50	61,081 00	1 50	20,228 25	22,409,945	647,436 00	50	112,049 73	147,411 90	35	51,594 16	5,838. 50	91,314 00	3 00	17,515 50
38	59,467 00	1 50	14,757 00	22,825,781	705,748 53	50	114,128 92	313,458 00	35	109,710 30	4,626	85,078 00	3 00	13,878 00
35. 50	85,766 54	1 50	20,753 25	24,234,780	1,023,563 00	50	121,173 90	328,532 00	35	114,986 20	4,689	93,348 00	3 00	14,067 00
5. 50	77,525 00	2 00	28,391 00	27,391,485	1,014,544 44	50	136,957 43	207,445 15	25	51,861 29	6,403. 50	100,508 00	2 00	12,807 00
3	46,524 00	2 00	21,946 00	32,755,345	955,997 50	50	163,776 73	365,719 00	25	91,427 75	5,611. 50	72,907 00	2 00	11,223 00

SALMON, DRIED OR SMOKED.				OIL, COD LIVER, BROWN OR CRUDE.				OIL, WHALE OR FISH.				TOTAL.	
ntities.	Values.	Rate of duty per pound.	Estimated duties remitted.	Quantities.	Values.	Rate of duty.	Estimated duties remitted.	Quantities.	Values.	Rate of duty.	Estimated duties remitted.	Values.	Estimated duties remitted.
nds.	*Dollars.*	*Cents.*	*Dollars.*	*Gallons.*	*Dollars.*	*P. cent.*	*Dollars.*	*Gallons.*	*Dollars.*	*P. cent.*	*Dollars.*	*Dollars.*	*Dollars.*
21	4,703 00	1	164 61	88,387	54,850 00	20	10,970 00	72,122	37,094 00	20	7,418 80	1,587,234 01	392,882 21
96. 50	8,560 00	1½	290 48	222,552	134,585 00	20	26,917 00	55,626. 50	27,059 00	20	5,411 80	1,847,684 48	477,042 34
40	970 00	2	46 20	94,730	59,394 50	20	11,878 90	42,938	42,214 30	20	8,442 86	1,555,860 53	363,563 74
69	3,704 00	2½	185 35	129,263	81,607 00	20	16,321 40	19,620	10,982 00	20	2,196 40	1,118,109 11	260,015 82
54	1,082 00	3	46 77	284,974	166,348 00	20	33,269 60	25,907	10,036 00	20	2,007 20	1,859,772 07	431,563 95
58	11,977 00	3½	1,385 79	142,559	65,889 00	20	13,177 80	42,752	15,966 00	20	3,193 20	1,539,073 22	411,274 93
75	4,785 00	4	663 88	264,999	113,890 00	20	22,778 00	141,440	56,706 00	20	11,341 20	1,557,667 44	475,687 57
65	29 00	4½	1 83	371,886	191,433 00	20	38,286 60	205,407	102,206 00	20	20,441 20	2,179,863 40	597,961 42
.....	.....	.....	.....	263,651. 50	133,858 16	20	26,771 63	112,717	48,850 00	20	9,770 00	2,148,724 54	537,088 40
2	35,086 00	½	3,453 01	171,007	117,666 23	20	23,533 25	155,466	85,987 00	20	17,197 40	2,735,603 62	553,571 41
.....	.....	.....	.....	379,863	225,451 00	25	56,362 75	48,445	18,291 00	25	4,572 75	3,147,716 48	635,527 93
.....	.....	.....	.....	161,209	96,230 00	25	24,057 50	62,821	23,938 00	25	5,984 50	2,706,831 16	689,602 25

No. 56.—STATEMENT showing the estimated amount of DUTY COLLECTED on IMPORTS of FISH into the United States from the British North American Possessions during each Year ending June 30, from 1866 to 1873, inclusive, and 1886.

YEAR ENDING JUNE 30—	FISH. Herring, pickled.	Mackerel pickled.	Salmon, pickled.	Other pickled, in barrels.	Other not in barrels, sold by weight.	Anchovies and sardines packed in oil or otherwise.	All other, not elsewhere specified.	TOTAL DUTY.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1866	2,070	10,620	1,464	9,588	5,256	323	.....	29,321
1867	97,595	155,006	18,648	36,943	32,530	37	.....	340,759
1868	54,301	83,310	19,539	21,282	38,940	65	.....	217,437
1869	(a)	(a)	(a)	(a)	(a)	(a)	279,439	279,439
1870	(a)	(a)	(a)	(a)	(a)	(a)	292,352	292,352
1871	(a)	(a)	(a)	(a)	(a)	(a)	300,294	300,294
1872	64,200	155,462	(a)	(a)	(a)	383	88,940	308,985
1873	53,039	179,396	(a)	(a)	(a)	1,768	137,887	372,090
1886	51,263	101,778	9,064	(a)	95,816	442	38,665	297,028

a Included in "All other not elsewhere specified."

No. 57.—STATEMENT, by CUSTOMS DISTRICTS, showing the estimated DUTY collected on IMPORTS of FISH into the United States from the British North American Possessions (other than British Columbia) during the Year ending June 30, 1886.

[From Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland, and Labrador.]

CUSTOMS DISTRICTS INTO WHICH IMPORTED.	FISH. Herring, pickled.	Mackerel	Salmon, pickled.	Not in barrels, sold by weight.	Anchovies and sardines packed in oil or otherwise.	All other, not elsewhere specified.	TOTAL DUTY.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
ATLANTIC PORTS (and Chicago):						3,516	65,585
New York, N. Y	10,477	25,124	4,298	22,170	.....		
Boston and Charlestown, Mass	25,777	65,224	3,556	38,301	.....	4,992	137,850
Philadelphia, Pa	45	.....	.....	.....	.....	.....	45
Baltimore, Md	.....	20	30	1,709	.....	.....	1,759
Aroostook, Me	114	2	.....	10	.....	8	134
Bangor, Me	4	7,290	208	1,046	.....	2,359	10,907
Barnstable, Mass	.....	.....	.....	1,232	.....	.....	1,232
Chicago, Ill	1,732	996	.....	300	434	.....	3,462
Gloucester, Mass	.....	.....	.....	11,207	.....	.....	11,207
Machias, Me	.....	.....	.....	10	.....	.....	10
Marblehead, Mass	2	.....	.....	.....	.....	.....	2
Newark, N. J	.....	.....	.....	.....	.....	1	1
Newburyport, Mass	.....	.....	.....	.....	.....	14	14
Passamaquoddy, Me	796	2,436	190	15,347	.....	3,139	21,908
Portland and Falmouth, Me	1,615	.....	.....	4,317	.....	.....	5,932
Portsmouth, N. H	.....	.....	.....	2	.....	.....	2
Richmond, Va	2,485	.....	.....	.....	.....	.....	2,485
St. John's, Fla	.....	.....	.....	.....	.....	7	7
				4	.....	2	6
				.....	.....	1	1

No. 58.—STATEMENT showing, by CUSTOMS DISTRICTS, the KINDS, QUANTITIES, and VALUES of DUTIABLE FISH IMPORTED into the United States during each Year ending June 30, from 1866 to 1873, inclusive, and 1886.

1866.

CUSTOMS DISTRICTS INTO WHICH IMPORTED.	DUTIABLE FISH.										
	Mackerel.		Herring.		Salmon.		All other fish in barrels.		All other fish not in barrels.		Sardines and anchovies, preserved in oil or otherwise.
	Bbls.	*Dolls.*	*Bbls.*	*Dolls.*	*Bbls.*	*Dolls.*	*Bbls.*	*Dolls.*	*Pounds.*	*Dolls.*	*Dolls.*
Baltimore, Md	.....	.....	6	120	.....	.....	.....	.....	.....	.....	34
Boston and Charlestown, Mass	5,127	46,211	1,609	4,123	14	303	627	2,390	3,442,697	72,967	4,199
Buffalo Creek, N. Y	.....	.....	35	280	.....	.....	34	294	.....	.....	73
Champlain, N. Y	.....	.....	.....	.....	36	538	.....	.....	172	10	.....
Charleston, S. C	.....	.....	.....	.....	.....	.....	.....	.....	162	18	360
Chicago, Ill	.....	.....	25	132	.....	.....	139	1,003	400	17	507
Detroit, Mich	8	46	1	4	422	800	1,031	7,333	18,755	499	2
Gloucester, Mass	.....	.....	.....	.....	.....	.....	10	40	50,292	1,569	.....
Key West, Fla	.....	.....	.....	.....	.....	.....	.....	.....	182	18	5,482
Michigan, Mich	.....	.....	.....	.....	.....	.....	501	2,133	.....	.....	.....
New Orleans, La	.....	.....	3	10	.....	.....	1	7	39,949	2,746	130,665
New York, N. Y	2	4	6,550	73,794	.....	.....	27	479	100,434	3,378	721,562
Oswegatchie, N. Y	.....	.....	.....	.....	.....	.....	.....	.....	56	3	.....
Passamaquoddy, Me	.....	.....	.....	.....	.....	.....	4,027	16,211	389,954	7,803	.....
Philadelphia, Pa	.....	.....	76	1,048	.....	.....	.....	.....	.....	.....	2,701
Portland and Falmouth, Me	.....	.....	.....	.....	.....	.....	16	62	44,556	1,537	.....
Richmond, Va	175	1,860	300	850	.....	.....	.....	.....	.....	.....	.....
Salem and Beverly, Mass	.....	.....	.....	.....	.....	.....	.....	.....	225	2	.....
Sandusky, Ohio	.....	.....	.....	.....	.....	.....	.....	.....	24,810	400	.....
Savannah, Ga	.....	.....	150	178	.....	.....	.....	.....	2,240	109	219
Vermont, Vt	.....	.....	.....	.....	16	334	7	231	200	8	19
Total into ports other than Pacific	5,312	48,121	8,755	80,539	488	1,975	6,420	30,183	4,115,084	91,084	865,823
Total into Pacific ports	.....	.....	87	1,222	298	2,342	15	240	137,864	12,335	72,097
Total into the U. S	5,312	48,121	8,842	81,761	786	4,317	6,435	30,423	4,252,948	103,419	937,920
Portion from British N. A. Possessions	5,310	48,117	2,070	5,489	786	4,317	6,407	29,937	1,089,558	31,164	681

1867.

Baltimore, Md	2,542	21,169	14,689	52,005	540	5,668	.....	.....	.....	.....	62
Bangor, Me	.....	.....	.....	.....	.....	.....	.....	.....	47,376	1,794	.....
Bath, Me	.....	.....	301	1,271	.....	.....	.....	.....	.....	.....	.....
Boston and Charlestown, Mass	51,865	444,802	45,532	120,561	4,337	92,081	13,047	86,990	8,695,697	230,335	5,259
Buffalo Creek, N. Y	.....	.....	13	50	.....	.....	140	1,331	.....	.....	.....
Cape Vincent, N. Y	.....	4	.....	.....	.....	.....	8	76	.....	.....	.....
Castine, Me	.....	.....	15	71	.....	.....	7	36	6,244	275	.....
Champlain, N. Y	2	13	189	656	11	221	47	327	620	37	1
Charleston, S. C	315	2,947	42	216	30	654	2	12	12,448	611	907
Chicago, Ill	.....	.....	1,325	5,878	.....	.....	96	271	13,556	587	181
Cuyahoga, Ohio	.....	.....	.....	.....	1	21	146	876	.....	.....	.....
Detroit, Mich	.....	.....	300	900	1	30	2,766	20,411	4,827	343	.....
Fairfield, Conn	.....	.....	.....	.....	.....	.....	26	261	.....	.....	.....
Galveston, Tex	.....	.....	15	219	.....	.....	7	28	3,688	220	.....
Genesee, N. Y	.....	.....	25	141	.....	.....	85	616	.....	.....	.....
Gloucester, Mass	3,250	28,324	80	274	.....	.....	.....	.....	.....	.....	.....
Michigan, Mich	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Milwaukee, Wis											

No. 58.—STATEMENT showing, by CUSTOMS DISTRICTS, the KINDS, QUANTITIES, and VALUES of DUTIABLE FISH IMPORTED, &c., from 1866 to 1873, and 1886—Continued.

CUSTOMS DISTRICTS INTO WHICH IMPORTED.	DUTIABLE FISH.												Sardines and anchovies preserved in oil or otherwise.
	Mackerel.		Herring.		Salmon.		All other fish in barrels.		All other fish not in barrels.				
	Bbls.	Dolls.	Bbls.	Dolls.	Bbls.	Dolls.	Bbls.	Dolls.	Pounds.	Dolls.			Dolls.
1867.													
Oswegatchie, N. Y	-----	-----	28	145	-----	-----	3	14	40	2			-----
Oswego, N. Y	-----	-----	111	386	-----	-----	247	1,340	510	27			-----
Passamaquoddy, Me	-----	-----	195	505	-----	-----	6,359	27,723	524,078	12,845			-----
Philadelphia, Pa	5,933	56,839	7,230	28,636	35	733	12	101	13,597	649			5,731
Portland and Falmouth, Me	818	9,288	2,657	10,883	401	6,389	255	1,845	692,588	19,132			-----
Richmond, Va	34	433	-----	-----	-----	-----	-----	-----	-----	-----			-----
Salem and Beverly, Mass	24	160	9	36	-----	-----	-----	-----	29,785	706			-----
Sandusky, Ohio	-----	-----	-----	-----	-----	-----	21	60	48,065	1,076			-----
Superior, Mich	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			-----
Vermont, Vt	-----	-----	3	20	80	20	436	688	4,185	-----	-----		-----
Total into ports other than Pacific	77,503	675,986	102,920	396,874	6,216	125,413	24,855	3	22	-----	-----		-----
Total into Pacific ports	-----	-----	9	74	454	3,638	6	154,902	11,141,442	298,444			387,52
Total into the U. S	77,503	675,986	102,929	396,948	6,670	129,051	24,861	38	204,533	12,905			91,097
Portion from British N. A. Poss	77,503	675,986	97,595	321,404	6,670	129,051	24,630	154,940	11,345,975	311,349			478,619
								152,701	6,528,035	199,437			73
1868.													
Baltimore, Md	372	2,878	5,046	17,800	305	3,159	128	917	1,050,768	33,366			4
Boston and Charlestown, Mass	21,041	176,971	24,170	76,012	3,914	55,472	10,781	43,180	7,058,915	188,285			4,133
Brazos de Santiago, Tex	-----	-----	-----	-----	-----	-----	-----	-----	1,800	154			6
Buffalo Creek, N. Y	17	212	-----	69	4	34	2	10	-----	-----			-----
Cape Vincent, N. Y	-----	-----	13	183	-----	-----	1	8	-----	-----			-----
Castine, Me	83	1,115	41	1,692	22	279	3	29	9,108	329			-----
Champlain, N. Y	10	66	397	74	-----	-----	10	41	-----	-----			-----
Charleston, S. C	-----	-----	4	394	-----	-----	-----	-----	5,000	155			-----
Chicago, Ill	-----	-----	101	162	-----	-----	28	81	7,600	219			-----
Cuyahoga, Ohio	-----	-----	48	90	1	19	32	149	-----	-----			-----
Detroit, Mich	-----	-----	18	127	-----	-----	442	3,007	5,225	185			-----
Galveston, Tex	-----	-----	17	-----	-----	-----	-----	-----	-----	-----			4,522
Genesee, N. Y	1	10	-----	210	-----	-----	-----	280	658	20			-----
Georgetown, D. C	-----	-----	100	2	-----	-----	44	-----	-----	-----			-----
Gloucester, Mass	744	7,184	1	398	-----	-----	-----	-----	142,394	3,821			-----
Huron, Mich	-----	-----	91	-----	-----	-----	4	42	420	51			-----
Key West, Fla	-----	-----	-----	-----	-----	-----	-----	-----	300	18			-----
Milwaukee, Wis	-----	-----	-----	-----	-----	-----	83	558	-----	-----			-----
Newark, N. J	-----	-----	186	1,933	-----	-----	18	136	-----	-----			-----
New Orleans, La	-----	-----	20,781	152,756	640	7,807	312	2,967	17,760	1,389			110,574
New York, N. Y	5,847	56,956	-----	-----	3	45	2	18	347,462	8,579			281,702
Niagara, N. Y	3	42	31	160	3	37	2	8	-----	-----			-----
Oswegatchie, N. Y	-----	-----	2	8	-----	-----	129	789	25	2			-----
Oswego, N. Y	-----	-----	707	2,034	5	85	1,217	8,787	821,607	25,386			25
Passamaquoddy, Me	4,681	41,998	515	3,213	-----	-----	32	104	30	3			4
Philadelphia, Pa	1,398	12,695	6,376	22,556	1,062	15,686	168	771	514,757	15,696			4
Portland and Falmouth, Me	7,413	63,941	12	45	-----	-----	-----	-----	3,329	91			-----
Salem and Beverly,	5	25	-----	-----	-----	-----	-----	-----	2,300	42			-----
									57	3			-----
									2,227	3			-----

No. 58.—STATEMENT showing, by CUSTOMS DISTRICTS, the KINDS, QUANTITIES, and VALUES of DUTIABLE FISH IMPORTED, &c., from 1866 to 1873, and 1886—Continued.

CUSTOMS DISTRICTS INTO WHICH IMPORTED.	Fish, fresh and cured, not of American fisheries, **1869.**	Fish, fresh and cured, not of American fisheries, **1870.**	Fish, fresh and cured, not of American fisheries, **1871.**	**1872.** DUTIABLE FISH. Herring.		Mackerel.		Sardines and anchovies, preserved in oil or otherwise.	All other fish, not elsewhere specified.
	Dolls.	*Dolls.*	*Dolls.*	*Bbls.*	*Dolls.*	*Bbls.*	*Dolls.*	*Dolls.*	*Dolls.*
Aroostook, Me	49	544	382	43	177	.....	.....	.....	95
Baltimore, Md	69, 974	39, 912	36, 473	11, 886	46, 908	1, 708	9, 417	134	828
Bangor, Me	.....	.....	.....	.....	.....	.....	.....	.....	53
Barnstable, Mass	.....	875	.....	.....	.....	.....	.....	.....	.....
Bath, Me	.....	10	36	.....	.....	.....	.....	.....	1
Boston and Charlestown, Mass	647, 403	723, 204	735, 364	37, 316	119, 489	51, 051	272, 241	15, 367	213, 260
Brazos de Santiago, Tex	303	734	860	.....	.....	.....	.....	285	677
Buffalo Creek, N. Y	594	4, 505	664	.....	.....	10	45	.....	5
Cape Vincent, N. Y	197	36	19	.....	.....	.....	.....	.....	9
Castine, Me	339	.....	.....	.....	.....	.....	.....	.....	.....
Champlain, N. Y	1, 652	3, 078	3, 477	106	480	14	88	.....	275
Charleston, S. C	134	.....	141	.....	.....	.....	.....	10	10
Chicago, Ill	2, 271	1, 455	8, 569	240	1, 350	178	979	693	446
Cuyahoga, Ohio	.....	234	1, 353	.....	.....	.....	.....	.....	354
Delaware, Del	.....	.....	16	.....	.....	.....	.....	.....	.....
Detroit, Mich	4, 452	12, 138	3, 698	.....	.....	.....	.....	.....	1, 165
Fairfield, Conn	.....	18	286	.....	.....	.....	.....	.....	31
Galveston, Tex	554	304	84	2	26	.....	.....	3	.....
Genesee, N. Y	314	68	58	31	159	.....	.....	.....	8
Gloucester, Mass	14, 628	12, 773	4, 926	5	34	540	4, 135	.....	2, 181
Huron, Mich	678	3, 776	1, 946	3	13	81	482	.....	82
Key West, Fla	.....	339	1, 223	.....	.....	.....	.....	71	1, 535
Machias, Me	41	614	232	19	41	.....	.....	.....	223
Marblehead, Mass	146	189	284	.....	.....	.....	.....	.....	6
Miami, Ohio	.....	84	.....	.....	.....	.....	.....	.....	.....
Milwaukee, Wis	.....	.....	2	.....	.....	.....	.....	.....	15
Minnesota, Minn	.....	12	15	.....	.....	.....	.....	.....	.....
Newark, N. J	436	68	16	.....	.....	.....	.....	.....	16
New Bedford, Mass	.....	.....	70	.....	.....	.....	.....	.....	16
New Haven, Conn	.....	.....	.....	.....	.....	.....	.....	.....	21
New London, Conn	49	.....	.....	.....	.....	.....	.....	.....	.....
New Orleans, La	106, 178	224, 782	151, 477	301	3, 957	.....	.....	57, 790	7, 270
New York, N. Y	716, 741	833, 923	1, 139, 303	23, 789	196, 189	8, 311	51, 214	522, 986	76, 949
Niagara, N. Y	879	650	1, 400	.....	.....	.....	.....	.....	.....
Norfolk and Portsmouth, Va	1, 495	.....	.....	.....	.....	1	10	.....	.....
Oswegatchie, N. Y	93	289	163	51	220	6	41	.....	77
Oswego, N. Y	1, 413	230	1, 169	65	303	15	69	.....	511
Paso del Norte, Tex. and N. Mex.	84	.....	17	.....	.....	.....	.....	.....	.....
Passamaquoddy, Me	123, 890	120, 081	139, 359	309	1, 025	982	6, 721	.....	46, 588
Pensacola, Fla	.....	.....	.....	18	78	.....	.....	.....	.....
Philadelphia, Pa	8, 895	13, 253	7, 527	279	1, 049	2, 752	21, 481	658	12
Portland and Falmouth, Me	121, 480	152, 217	159, 743	3, 456	12, 129	13, 424	81, 175	.....	50, 823
Portsmouth, N. H	.....	310	102	.....	.....	.....	.....	.....	68
Richmond, Va	800	3, 322	.....	.....	.....	.....	.....	.....	25
Salem and Beverly, Mass	1, 023	707	354	.....	.....	.....	.....	.....	44
Sandusky, Ohio	75	575	577	.....	.....	.....	.....	.....	433
Savannah, Ga	.....	124	473	.....	.....	122	1, 326	10	144
Saint John's, Fla	352	246	.....	.....	.....	.....	.....	.....	.....
Superior, Mich	7, 514	6, 196	4, 431	.....	.....	.....	.....	.....	1, 420
Vermont, Vt	8, 703	8, 573	23, 377	260	1, 058	7	41	61	1, 404
Waldoborough, Me	.....	25	460	21	105	.....	.....	.....	39
Total into ports other than Pacific	1, 843, 829	2, 170, 473	2, 430, 126	78, 200	384, 790	79, 202	449, 465	598, 068	407, 119
Total into Pacific ports	129, 341	145, 980	73, 798	17	145	33	159	25, 467	42, 475
Total into the United States	1, 973, 170	2, 316, ...							

No. 58.—STATEMENT showing, by CUSTOMS DISTRICTS, the KINDS, QUANTITIES, and VALUES of DUTIABLE FISH IMPORTED, &c., from 1866 to 1873, and 1886—Continued.

CUSTOMS DISTRICTS INTO WHICH IMPORTED.	1873.					
	DUTIABLE FISH.					
	Herring.		Mackerel.		Sardines and anchovies, preserved in oil or otherwise.	All other fish, not elsewhere specified.
Lake ports.	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Dollars.*	*Dollars.*
Aroostook, Me	80	395	1	4	.....	162
Buffalo Creek, N. Y	201	584	.....	.....	.....	2,241
Cape Vincent, N. Y	.....	.....	.....	.....	.....	11
Champlain, N. Y	235	871	9	41	.....	242
Chicago, Ill	2,761	12,626	234	1,439	91	.....
Cuyahoga, Ohio	.....	.....	590	3,140	.....	36
Detroit, Mich	.....	.....	.....	.....	19	941
Duluth, Minn	.....	.....	.....	.....	.....	15
Genesee, N. Y	.....	.....	.....	.....	.....	8
Huron, Mich	11	55	12	89	16	45
Milwaukee, Wis	1,000	4,000	.....	.....	.....	.....
Niagara, N. Y	1,598	4,297	.....	.....	3,401	.....
Oswegatchie, N. Y	192	743	4	26	.....	66
Oswego, N. Y	20	78	10	62	.....	.....
Sandusky, Ohio	.....	.....	.....	.....	.....	858
Superior, Mich	.....	.....	.....	.....	.....	732
Vermont, Vt	1,295	4,845	5	47	.....	7,072
Total lake ports	7,393	28,494	865	4,848	3,527	12,429
Atlantic and Gulf ports.						
Baltimore, Md	1,777	5,781	780	3,392	359	989
Bangor, Me	26	66	.....	.....	.....	2,207
Bath, Me	.....	.....	.....	.....	.....	22
Belfast, Me	20	60	.....	.....	.....	40
Boston and Charlestown, Mass	18,837	57,720	40,760	255,591	35,401	276,457
Brazos de Santiago, Tex	.....	.....	.....	.....	.....	336
Charleston, S. C	18	146	.....	.....	139	3
Gloucester, Mass	.....	.....	412	4,418	.....	3,381
Galveston, Tex	.....	.....	.....	.....	75	.....
Key West, Fla	.....	.....	.....	.....	228	1,313
Machias, Me	.....	.....	.....	.....	.....	114
Marblehead, Mass	1	5	.....	.....	.....	12
New Orleans, La	254	4,472	.....	.....	143,534	4,186
New York, N. Y	30,937	235,955	9,452	45,219	904,979	50,770
Norfolk and Portsmouth, Va	773	914	1	2	.....	12
Paso del Norte, Tex. and N. Mex	.....	.....	.....	.....	177	.....
Passamaquoddy, Me	135	375	943	8,047	.....	61,865
Philadelphia, Pa	.....	.....	660	6,577	243	46
Portland and Falmouth, Me	8,384	24,743	37,016	282,363	.....	189,302
Salem and Beverly, Mass	15	55	.....	.....	.....	272
Savannah, Ga	119	470	.....	.....	19	746
Saint John's, Fla	.....	.....	.....	.....	.....	1
Waldoborough, Me	3	6	.....	.....	.....	50
Total into Atlantic and Gulf ports	61,299	330,768	90,024	605,609	1,085,154	592,124
Total into ports other than Pacific	68,692	359,262	90,889	*610,457	1,088,681	604,553
Total into Pacific ports	.....	.....	.....	.....	84,023	59,360
Total into the United States	68,692	359,262	90,889	610,457	1,172,704	663,913
Portion from British North American	[illegible]	170,377	89,698	605,778	3,527	552,032

No. 58.—STATEMENT showing, by CUSTOMS DISTRICTS, the KINDS, QUANTITIES, and VALUES of DUTIABLE FISH IMPORTED, &c., from 1866 to 1873, 1886—Continued.

CUSTOMS DISTRICTS INTO WHICH IMPORTED.	1886.				
	DUTIABLE FISH.				
	Anchovies and sardines packed in oil or otherwise.	Cod, haddock, hake, and pollock, dried, smoked, or pickled.		Herring, dried or smoked.	
Lake ports.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
Aroostook, Me	.....	2,400	113	1,690	30
Buffalo Creek, N. Y	.....	.....	.....	.....	.....
Cape Vincent, N. Y	.....	.....	.....	.....	.....
Champlain, N. Y	.....	.....	.....	.....	.....
Chicago, Ill	6,482	38,520	2,785	60,057	1,465
Detroit, Mich	.....	.....	.....	.....	.....
Duluth, Minn	.....	.....	.....	.....	.....
Genesee, N. Y	1,149	.....	.....	.....	.....
Huron, Mich	.....	6,000	180	.....	.....
Michigan, Mich	.....	.....	.....	.....	.....
Milwaukee, Wis	109	8,400	625	.....	.....
Minnesota, Minn	107	24,220	1,741	1,475	67
Niagara, N. Y	.....	.....	.....	.....	.....
Oswegatchie, N. Y	.....	240	18	.....	.....
Sandusky, Ohio	.....	.....	.....	.....	.....
Superior, Mich	.....	.....	.....	.....	.....
Vermont, Vt	19	200	16	23,500	418
Total lake ports	7,866	79,980	5,478	86,722	1,980
Atlantic and Gulf ports.					
Baltimore, Md	1,687	55	2	375,280	7,403
Bangor, Me	.....	648	15	208,626	3,613
Barnstable, Mass	.....	246,400	5,063	.....	.....
Boston and Charlestown, Mass	60,080	5,907,623	148,659	2,447,715	51,457
Corpus Christi, Tex	311	.....	.....	.....	.....
Galveston, Tex	2 606	.....	.....	.....	.....
Gloucester, Mass	.....	2,241,460	36,227	.....	.....
Key West, Fla	806	28,107	2,415	.....	.....
Louisville, Ky	765	.....	.....	.....	.....
New Orleans, La	65,779	35,238	2,270	200	8
New York, N. Y	583,734	4,124,807	137,498	318,044	5,625
Passamaquoddy, Me	.....	793,442	14 586	2,275,638	27,928
Philadelphia, Pa	11,579	.....	.....	.....	.....
Portland and Falmouth, Me	.....	863,470	16,553	.....	.....
Richmond, Va	.....	.....	.....	.....	.....
Salem and Beverly, Mass	.....	836	29	.....	.....
Savannah, Ga	.....	.....	.....	.....	.....
Saint Louis, Mo	2,043	110	6	.....	.....
All other Atlantic and Gulf ports	592	1,904	19	400	4
Total into Atlantic and Gulf ports	729,982	14,244,100	363,342	5,625,903	96,038
Total into ports other than Pacific	737,848	14,324,080	368,820	5,712,625	98,018
Total into Pacific ports	85,852	.....	.....	100	3
Total into the United States	823,700	14,324,080	368,820	5,712,725	98,021
Portion from British North American Possessions	1,105	13,498,382	333,847	5,664,977	95,548

No. 58.—STATEMENT showing, by CUSTOMS DISTRICTS, the KINDS, QUANTITIES, and VALUES of DUTIABLE FISH IMPORTED, &c., from 1866 to 1873, and 1886—Continued.

CUSTOMS DISTRICTS INTO WHICH IMPORTED.	1886.						
	DUTIABLE FISH.						
	Herring, pickled or salted.		Mackerel, pickled.		Salmon, pickled.		All other dutiable fish.
Lake ports.	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars.*	*Barrels.*	*Dollars*	*Dollars.*
Aroostook, Me	116	355	1	12	.....	.....	30
Buffalo Creek, N. Y	.....	.....	.....	.....	.....	.....	9,910
Cape Vincent, N. Y	1	5	.....	.....	.....	.....	661
Champlain, N. Y	44	177	.....	.....	2	12	591
Chicago, Ill	14,149	63,303	738	6,441	.....	.....	22,797
Detroit, Mich	522	1,792	.....	.....	.....	.....	36,657
Duluth, Minn	.....	.....	.....	.....	.....	.....	357
Genesee, N. Y	.....	.....	.....	.....	.....	.....	.....
Huron, Mich	505	1,648	50	175	.....	.....	15,692
Michigan, Mich	.....	.....	.....	.....	.....	.....	25
Milwaukee, Wis	1,864	7,490	.....	.....	.....	.....	437
Minnesota, Minn	809	5,661	.....	.....	.....	.....	27,655
Niagara, N. Y	.....	.....	.....	.....	.....	.....	661
Oswegatchie, N. Y	18	74	.....	.....	.....	.....	.....
Sandusky, Ohio	368	762	.....	.....	.....	.....	7,245
Superior, Mich	.....	.....	.....	.....	.....	.....	1,403
Vermont, Vt	15	68	53	186	389	3,714	745
Total lake ports	18,411	81,335	842	6,814	391	3,726	124,866
Atlantic and Gulf ports.							
Baltimore, Md	.....	.....	10	50	15	134	95
Bangor, Me	4	17	3,645	30,952	104	1,418	9,437
Barnstable, Mass	.....	.....	.....	.....	.....	.....	.....
Boston and Charlestown, Mass	25,857	87,890	32,612	206,307	1,779	20,633	23,359
Corpus Christi, Tex	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex	.....	.....	.....	.....	.....	.....	22
Gloucester, Mass	.....	.....	.....	.....	.....	.....	.....
Key West, Fla	.....	.....	.....	.....	.....	.....	485
Louisville, Ky	.....	.....	.....	.....	.....	.....	.....
New Orleans, La	.....	.....	.....	.....	.....	.....	1,622
New York, N. Y	48,247	432,050	12,562	54,308	2,150	21,591	46,554
Passamaquoddy, Me	796	1,796	1,218	9,433	95	1,088	12,557
Philadelphia, Pa	46	239	.....	.....	.....	.....	89
Portland and Falmouth, Me	1,615	5,102	.....	.....	.....	.....	.....
Richmond, Va	2,485	3,700	.....	.....	.....	.....	.....
Salem and Beverly, Mass	.....	.....	.....	.....	.....	.....	6
Savannah, Ga	8	72	.....	.....	.....	.....	.....
Saint Louis, Mo	409	5,162	.....	.....	.....	.....	99
All other Atlantic and Gulf ports	2	6	.....	.....	.....	.....	207
Total into Atlantic and Gulf ports	79,469	536,034	50,047	301,050	4,143	44,864	94,532
Total into ports other than Pacific	97,880	617,369	50,889	307,864	4,534	48,590	219,398
Total into Pacific ports	.....	.....	.....	.....	28	224	51,868
Total into the United States	97,880	617,369	50,889	307,864	4,562	48,814	271,266
Portion from British North American Possessions	51,263	161,959	50,889	307,864	4,560	48,796	156,265

No. 59.—STATEMENT showing, by COUNTRIES, the KINDS, QUANTITIES, and VALUES of FISH IMPORTED into the United States during the Year ending June 30, 1886.

COUNTRIES FROM WHICH IMPORTED.	FREE OF DUTY.							DUTIABLE.		
	Salmon, fresh.	All other fresh fish.	Lobsters, canned or preserved.	All other.	TOTAL FREE OF DUTY.	Anchovies and sardines, packed in oil or otherwise.	Cod, haddock, hake, and pollock, dried, smoked, or pickled.			
	Pounds.	*Dolls.*	*Pounds.*	*Dolls.*	*Dolls.*	*Dolls.*	*Dolls.*	*Dolls.*	*Pounds.*	*Dolls.*
Austria								30,354		
Belgium								202		
Chili						28	28			
China						1,931	1,931	1	404	17
Denmark								89		
Danish West Indies								3		
France						26	26	708,840		
French West Indies									473,324	16,576
Miquelon, Langley, and St. Pierre Islands									207,938	8,082
Germany								8,331		
England						47	47	40,782	9,381	677
Scotland								438		
Gibraltar								12		
Nova Scotia, New Brunswick, &c.	1,118,933	115,563	6,582,818	167,006	336,728	61,669	680,966	1,086	11,717,524	263,036
Quebec, Ontario, &c., and N. W. Ter	303,687	29,216	12,283,619	352,945	2,254		384,415	19	8,610	321
British Columbia			250	10		25	35			
Newfoundland and Labrador	100	10	865,000	5,800			5,810		1,772,248	70,490
British West Indies						613	613			
British Honduras									180	5
Hong-Kong						225	225		212	19
Hayti						222	222			
Italy								4,095	870	61
Mexico			1,100	34		305	339	311		
Netherlands								7,024		
Dutch West Indies						460	460			
Portugal								5,375		
Azore, Madeira, and Cape Verde Islands									150	9
San Domingo						65	65			
Spain								3,968		
Cuba						653	653	887	28,507	2,445
Sweden and Norway						4	4	11,883	104,732	7,082
Venezuela						834	834			
Total	1,422,720	144,789	19,732,787	525,795	338,982	67,107	1,076,673	823,700	14,324,080	368,820

No. 59.—STATEMENT showing, by COUNTRIES, the KINDS, QUANTITIES, and VALUES of FISH IMPORTED, &c., 1886—Continued.

COUNTRIES FROM WHICH IMPORTED.	DUTIABLE.										TOTAL VALUE OF FISH IMPORTED.
	Herring.				Mackerel, pickled.		Salmon, pickled.		All other.	TOTAL DUTIABLE.	
	Dried or smoked.		Pickled or salted.								
	Pounds.	*Dolls.*	*Bbls.*	*Dolls.*	*Bbls.*	*Dolls.*	*Bbls.*	*Dolls.*	*Dolls.*	*Dolls.*	*Dolls.*
Austria										30,354	30,354
Belgium									10	511	511
Chili											28
China			26	299						42,589	44,520
Denmark									42,571	117	117
Danish West Indies											
France			6	28						3	3
French West Indies									5,546	714,716	714,742
Miquelon, Langley, and St. Pierre Islands	30	14	50	316						16,576	16,576
French Possessions, all other											
Germany										8,082	8,082
England	8,394	111	11,797	115,029							
Scotland	34	2	2,783	14,473					180	180	180
Gibraltar			814	5,048						134,353	134,353
Nova Scotia, New Brunswick, &c									10,882	65,049	65,096
Quebec, Ontario, &c	4,602,498	75,302	30,223	88,848	50,497	304,987	2,901	33,456	9,115	6,616	6,616
British Columbia	23,500	418	8,216	28,347	343	2,542	391	3,726	1,130	12	12
Newfonndland and Labrador	100	3					28	224			
British West Indies									55,114	821,829	1,502,795
British Honduras	1,038,879	19,825	12,824	44,764	49	335	1,240	11,390	98,505	133,878	518,293
Hong-Kong									1,040	1,833	1,868
British Possessions in Australasia									23	147,844	153,654
Hawaiian Islands									8	23	636
Hayti									3,945	13	13
Italy										3,964	4,189
Japan											
Mexico									598	598	598
Netherlands									1,509	1,509	1,509
Dutch West Indies	33,464	2,105	22,117	273,914							222
Portugal										5,982	5,982
Azore, Madeira, and Cape Verde Islands									1,818	14	14
Russia on the Baltic									14	1,431	1,770
Russia, Asiatic									1,120	283,495	283,495
San Domingo									452		460
Spain										5,375	5,375
Cuba											
Sweden and Norway	5,826	241	9,024	46,303					43	52	52
Venezuela									2,883	2,883	2,883
									147	147	147
											65
											4,007
									39	4,007	4,650
									665	3,997	
											97,826
									32,303	97,822	834
							1	10			
Total	5,712,725	98,021	97,880	617,369	50,889	307,864	4,562	48,814	271,266	2,535,854	3,612,527

No. 60.—STATEMENT showing the KINDS, QUANTITIES, and VALUES of DOMESTIC FISH and FISH OIL, and the TOTAL VALUE of FOREIGN FISH and FISH OIL, EXPORTED from the United States during each Year from 1821 to 1886.

YEARS ENDING—	DOMESTIC FISH AND FISH OIL.										TOTAL VALUE OF FOREIGN FISH AND FISH OIL.
	Dried or smoked.		Pickled.		Other cured.	Fresh.	Oysters.	Whale and fish oil.		TOTAL VALUE.	
Sept. 30—	*Cwts.*	*Dolls.*	*Bbls.*	*Dolls.*	*Dolls.*	*Dolls.*	*Dolls.*	*Galls.*	*Dolls.*	*Dolls.*	*Dolls.*
1821	267, 305	708, 778	76, 950	264, 813	.....	.....	.....	1, 068, 025	348, 991	1, 322, 582	3, 080
1822	241, 228	666, 730	70, 026	249, 108	.....	.....	.....	990, 325	211, 415	1, 227, 253	1, 463
1823	262, 766	734, 024	76, 772	270, 776	.....	.....	.....	1, 453, 126	415, 713	1, 420, 513	260
1824	310, 189	873, 685	74, 173	263, 019	.....	.....	.....	1, 251, 836	296, 708	1, 433, 412	4, 761
1825	300, 857	830, 356	71, 902	248, 417	.....	.....	.....	1, 072, 615	250, 200	1, 328, 973	383
1826	260, 803	667, 742	86, 877	257, 180	.....	.....	.....	652, 401	183, 343	1, 108, 265	590
1827	247, 321	747, 171	67, 054	240, 276	.....	.....	.....	481, 180	142, 648	1, 130, 095	1, 704
1828	265, 217	819, 926	64, 454	246, 737	.....	.....	.....	488, 468	140, 279	1, 206, 942	400
1829	294, 761	747, 541	62, 030	220, 527	.....	.....	.....	1, 237, 962	358, 822	1, 326, 890	.....
1830	229, 796	530, 690	66, 953	225, 987	.....	.....	.....	1, 833, 196	568, 326	1, 325, 003	3, 774
1831	230, 577	625, 393	92, 861	304, 441	.....	.....	.....	1, 637, 534	554, 440	1, 484, 274	276
1832	250, 514	749, 909	103, 274	306, 812	.....	.....	.....	3, 605, 913	1, 009, 728	2, 066, 449	972
1833	249, 689	712, 317	86, 897	277, 973	.....	.....	.....	3, 298, 872	924, 810	1, 915, 100	4, 552
1834	253, 132	630, 384	61, 931	223, 290	.....	.....	.....	2, 614, 814	740, 619	1, 594, 293	1, 800
1835	287, 721	783, 895	52, 097	224, 639	.....	.....	.....	2, 217, 321	773, 486	1, 782, 020	21, 576
1836	240, 769	746, 464	48, 629	221, 426	.....	.....	.....	2, 362, 325	1, 049, 466	2, 017, 356	65, 379
1837	188, 943	588, 506	40, 946	181, 334	.....	.....	.....	3, 624, 001	1, 271, 545	2, 041, 385	9, 260
1838	206, 028	626, 245	42, 034	192, 758	.....	.....	.....	4, 824, 376	1, 556, 775	2, 375, 778	800
1839	208, 720	709, 218	24, 328	141, 320	.....	.....	.....	1, 482, 908	515, 484	1, 366, 022	9, 034
1840	211, 425	541, 858	42, 556	179, 106	.....	.....	.....	4, 520, 878	1, 404, 984	2, 125, 948	7, 062
1841	252, 199	602, 810	36, 927	148, 973	.....	.....	.....	4, 094, 924	1, 260, 660	2, 012, 443	15, 188
1842	256, 083	567, 782	41, 416	162, 324	.....	.....	.....	3, 909, 728	1, 315, 411	2, 045, 517	7, 476
June 30—											
1843*a*	174, 220	381, 175	29, 537	116, 042	.....	.....	.....	2, 479, 916	803, 774	1, 300, 991	1, 643
1844	271, 610	699, 836	44, 168	197, 179	.....	.....	.....	4, 104, 504	1, 464, 968	2, 361, 983	3, 164
1845	288, 380	803, 353	43, 478	208, 654	.....	.....	.....	4, 505, 662	1, 520, 363	2, 532, 370	321
1846	277, 401	699, 559	56, 588	230, 495	.....	.....	.....	2, 652, 874	946, 298	1, 876, 352	213
1847	258, 870	659, 629	31, 072	136, 221	.....	.....	.....	3, 189, 562	1, 070, 659	1, 866, 509	100, 028
1848	206, 549	609, 482	22, 518	109, 315	.....	.....	.....	1, 607, 038	552, 388	1, 271, 185	246, 865
1849	197, 457	419, 092	22, 636	93, 085	.....	.....	.....	2, 783, 480	965, 597	1, 477, 774	135, 706
1850	168, 600	365, 349	19, 483	91, 445	.....	.....	.....	1, 470, 197	672, 640	1, 129, 434	143, 948
1851	151, 088	367, 729	21, 616	113, 932	.....	.....	.....	2, 004, 886	882, 485	1, 364, 146	173, 359
1852	134, 732	354, 127	19, 622	98, 883	.....	.....	.....	892, 309	440, 387	893, 297	208, 004
1853	131, 665	371, 607	15, 060	89, 409	.....	.....	.....	321, 989	223, 247	684, 263	363, 859
1854	131, 316	389, 973	25, 669	162, 187	.....	.....	.....	718, 842	490, 426	1, 042, 586	381, 724
1855	119, 926	379, 892	17, 176	94, 111	.....	.....	.....	705, 492	485, 505	959, 508	354, 080
1856	168, 971	578, 011	31, 309	173, 939	.....	.....	.....	646, 694	526, 338	1, 278, 288	279, 278
1857	174, 765	570, 348	36, 048	211, 383	.....	.....	.....	414, 466	363, 665	1, 145, 396	262, 965
1858	161, 269	487, 007	30, 892	197, 441	.....	.....	.....	840, 127	597, 107	1, 281, 555	230, 580
1859	209, 350	642, 901	35, 361	203, 760	.....	.....	.....	996, 341	598, 762	1, 445, 423	199, 716
1860	219, 628	690, 088	34, 119	191, 634	.....	.....	.....	1, 335, 736	1, 789, 089	2, 670, 811	242, 421
1861	219, 324	634, 941	48, 685	244, 028	.....	.....	.....	1, 009, 468	581, 264	1, 460, 233	184, 798
1862	250, 819	712, 584	68, 642	330, 685	.....	79, 453	.....	2, 599, 316	1, 280, 697	2, 403, 419	56, 076
1863	228, 234	921, 131	75, 262	429, 316	.....	.....	.....	2, 055, 511	1, 483, 593	2, 834, 040	131, 260
1864	192, 505	967, 918	75, 280	508, 568	29, 543	.....	85, 089	416, 405	438, 957	2, 030, 075	138, 804
1865	157, 472	1, 107, 955	56, 874	632, 690	.....	13, 890	126, 889	644, 547	816, 494	2, 697, 918	144, 150
1866	139, 693	734, 427	34, 305	360, 074	.....	192, 198	200, 409	177, 509	205, 250	1, 692, 358	129, 019
1867	109, 114	596, 586	22, 591	217, 494	.....	189, 281	181, 271	426, 882	319, 840	1, 504, 472	429, 951
1868	129, 074	598, 137	25, 033	209, 461	.....	184, 774	121, 946	706, 534	507, 476	1, 621, 794	353, 890
1869	88, 415	398, 825	24, 228	213, 455	272, 397	65, 348	89, 266	94, 361	81, 860	1, 121, 151	212, 498
1870	111, 672	579, 334	30, 935	253, 211	349, 058	69, 131	134, 804	310, 878	228, 278	1, 613, 816	315, 844
1871	119, 618	592, 598	29, 653	226, 369	467, 620	39, 983	168, 122	862, 434	452, 937	1, 947, 629	376, 018
1872	126, 613	588, 194	30, 642	209, 077	635, 533	67, 832	173, 711	1, 171, 646	552, 756	2, 227, 103	347, 136
1873	118, 076	569, 151	16, 747	109, 201	677, 171	64, 577	243, 723	288, 263	154, 243	1, 818, 066	544, 690
1874	129, 982	612, 589	29, 000	226, 041	1, 128, 208	56, 974	223, 733	573, 775	280, 750	2, 528, 295	206, 800
1875	129, 752	710, 121	51, 025	359, 669	1, 855, 550	69, 448	170, 277	895, 907	413, 411	3, 578, 476	217, 456
1876	175, 528	900, 306	54, 291	417, 281	2, 102, 522	80, 879	214, 196	1. 067, 515	436, 072	4, 151, 256	153, 492
1877	159, 648	791, 785	76, 227	486, 738	2, 486, 225	114, 338	260, 620	1, 026, 038	442, 165	4, 581, 871	229, 337
1878	188, 831	766, 154	57, 554	416, 162	3, 198, 896	84, 278	393, 061	904, 988	411, 808	5, 270, 359	233, 273
1879	197, 130	748, 747	47, 764	290, 862	2, 939, 587	80, 437	453, 306	2, [illegible]			
1880	179, 450	739, 231	54, 345	284, [illegible]							
1881	212, 601	[illegible]									

No. 61.—STATEMENT showing, by COUNTRIES, the KINDS, QUANTITIES, and VALUES of DOMESTIC FISH and FISH OIL, and the TOTAL VALUES of FOREIGN FISH and FISH OIL EXPORTED from the United States during the Years ending June 30, 1884, 1885, and 1886.

[Abbreviation: n. e. s., not elsewhere specified.]

KINDS OF FISH.	ENGLAND.		NOVA SCOTIA, NEW BRUNSWICK, PRINCE EDWARD ISLAND, QUEBEC, ONTARIO, MANITOBA, AND NORTHWEST TERRITORY.		GERMANY.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1884.		*Dollars.*		*Dollars.*		*Dollars.*
Codfish, haddock, hake, and pollock, dried, smoked, and cured...pounds	29,643	1,096	727,967	20,461	1,185	77
Mackerel, pickled ...barrels	93	1,105	850	4,713	.....	.....
Salmon:						
Canned	.....	1,774,340	.....	608	.....	2,519
Other	.....	11,659	.....	10,884	.....	663
Fish, fresh, n. e. s...pounds	.....	.....	1,353,160	42,332	.....	.....
Fish, dried, smoked, and cured, n. e. s., pounds	110,878	5,650	560,608	29,842	658,699	107,524
Fish, pickled, n. e. s...barrels	1,429	6,084	1,610	10,548	19	220
Shell-fish:						
Oysters	.....	349,706	.....	92,080	.....	28,303
Other	.....	12,171	.....	35,271	.....	7,533
Whale and fish oil...gallons	256,344	74,843	14,771	6,901	29,004	10,984
Total value of domestic fish	.....	2,236,654	.....	253,640	.....	157,833
Total value of foreign fish	.....	33,091	.....	122,969	.....	2,525
1885.						
Codfish, haddock, hake, and pollock, dried, smoked, and cured...pounds	5,120	256	244,942	7,074	621	44
Mackerel, pickled ...barrels	532	4,677	937	2,938	5	35
Salmon:						
Canned	.....	1,686,375	.....	24,897	.....	317
Other	.....	1,120	.....	125	.....	539
Fish, fresh, n. e. s...pounds	.....	.....	894,473	26,075	.....	.....
Fish, dried, smoked, and cured, n. e. s., pounds	161,718	12,542	504,143	28,113	744,791	99,963
Fish, pickled, n. e. s...barrels	365	7,006	434	1,519	15	65
Shell-fish:						
Oysters	.....	512,115	.....	106,801	.....	12,506
Other	.....	16,073	.....	29,809	.....	27,869
Whale and fish oil...gallons	391,705	107,206	4,300	1,549	63,013	19,659
Total value of domestic fish	.....	2,347,370	.....	228,900	.....	160,997
Total value of foreign fish	.....	5,862	.....	19,817	.....	12,124
1886.						
Codfish, haddock, hake, and pollock, dried, smoked, and cured...pounds	148	10	18,606	1,209	87	5
Mackerel, pickled...barrels	79	753	68	389	11	75
Salmon:						
Canned	.....	1,441,456	.....	23,980	.....	471
Other	.....	136	.....	124	.....	.....
Fish, fresh, n. e. s...pounds	.....	.....	853,386	26,205	75	10
Fish, dried, smoked, and cured, n. e. s., pounds	127,340	6,259	397,125	22,802	630,732	86,443
Fish, pickled, n. e. s...barrels	28	214	498	3,815	10	50
				100,343	.....	10,619

No. 61.—EXPORTS of DOMESTIC and FOREIGN FISH, &c., by COUNTRIES, &c., 1884–1886—Continued.

KINDS OF FISH.	HONG-KONG.		BRITISH POSSESSIONS IN AUSTRALASIA.		HAWAIIAN ISLANDS.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1884.						
		Dollars.		*Dollars.*		*Dollars.*
Codfish, haddock, hake, and pollock, dried, smoked, and cured ....pounds..	34,380	2,123	71,930	4,874	121,765	7,500
Mackerel, pickled .....barrels..	.....	.....	.....	.....	.....	.....
Salmon:						
Canned	.....	11,044	.....	401,679	.....	28,242
Other.....	.....	.....	.....	14,105	.....	41,464
Fish, fresh, n. e. s .....pounds..	.....	.....	.....	.....	.....	.....
Fish, dried, smoked, and cured, n. e. s., pounds	1,149,579	63,947	27,017	2,425	271,857	16,166
Fish, pickled, n. e. s.....barrels..	.....	.....	882	4,392	739	7,958
Shell-fish:						
Oysters	.....	17	.....	17,498	.....	6,008
Other.....	.....	87,280	.....	6,550	.....	15,259
Whale and fish oil .....gallons..	4,643	2,479	33,038	16,032	244	110
Total value of domestic fish.....	.....	166,890	.....	467,555	.....	122,707
Total value of foreign fish	.....	.....	.....	12,335	.....	5,166
1885.						
Codfish, haddock, hake, and pollock, dried, smoked, and cured ....pounds..	63,730	3,130	517,740	25,456	153,580	6,719
Mackerel, pickled.....barrels..	.....	.....	30	300	.....	.....
Salmon:						
Canned	.....	8,039	.....	383,992	.....	20,724
Other.....	.....	1,200	.....	12,292	.....	36,738
Fish, fresh, n. e. s .....pounds..	.....	.....	.....	.....	.....	.....
Fish, dried, smoked, and cured, n. e. s., pounds	946,736	41,015	21,367	1,543	311,001	15,954
Fish, pickled, n. e. s .....barrels..	.....	.....	1,785	9,135	91	766
Shell-fish:						
Oysters.....	.....	167	.....	11,043	.....	4,512
Other.....	.....	169,100	.....	23,479	.....	15,260
Whale and fish oil .....gallons..	13,635	5,701	120,024	51,664	703	238
Total value of domestic fish	.....	228,352	.....	518,904	.....	100,911
Total value of foreign fish	.....	33	.....	20,116	.....	3,091
1886.						
Codfish, haddock, hake, and pollock, dried, smoked, and cured ....pounds..	49,000	2,641	145,400	7,546	225,526	11,382
Mackerel, pickled.....barrels..	.....	.....	134	805	.....	.....
Salmon:						
Canned	.....	6,869	.....	290,857	.....	21,575
Other.....	.....	1,840	.....	910	.....	20,815
Fish, fresh, n. e. s .....pounds..	.....	.....	.....	.....	.....	.....
Fish, dried, smoked, and cured, n. e. s., pounds	477,542	19,712	17,285	1,609	407,568	19,723
Fish, pickled, n. e. s .....barrels..	458	2,935	416	3,491	496	4,021
Shell-fish:						
Oysters.....	.....	672	.....	29,977	.....	7,990
Other.....	.....	186,392	.....	41,970	.....	19,736
Whale and fish oil .....gallons..	15,430	5,688	54,032	18,585	1,699	856
Total value of domestic fish	.....	226,749	.....	395,750	.....	106,098
Total value of foreign fish	.....	.....	.....	43,090	.....	1,627

No. 61.—EXPORTS of DOMESTIC and FOREIGN FISH, &c., by COUNTRIES, &c., 1884–1886—Continued.

KINDS OF FISH.	HAYTI.		UNITED STATES OF COLOMBIA.		ALL OTHER COUNTRIES.		TOTAL.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1884.								*Dollars.*
Codfish, haddock, hake, and pollock, dried, smoked, and cured ..... pounds..	3,889,650	*Dolls.* 205,406	1,057,052	*Dolls.* 70,961	8,995,551	*Dollars.* 422,448	14,929,123	734,946
Mackerel, pickled....barrels..	4,244	34,845	934	12,255	6,981	55,032	13,102	107,950
Salmon:								
Canned	.....	223	.....	11,820	.....	92,551	.....	2,323,026
Other.....	.....	101	.....	6,584	.....	25,071	.....	110,531
Fish, fresh, n. e. s ....pounds..	312	43	.....	.....	287,589	19,634	1,641,061	62,009
Fish, dried, smoked, and cured, n. e. s ..... pounds..	595,545	21,513	241,650	21,455	3,558,499	146,484	7,174,332	415,006
Fish, pickled, n. e. s..barrels..	15,086	94,010	233	1,599	11,934	64,125	31,932	188,946
Shell-fish:								
Oysters	.....	1,105	.....	2,971	.....	74,799	.....	572,487
Other.....	.....	61	.....	7,630	.....	56,275	.....	228,030
Whale and fish oil...gallons..	94	40	245	126	150,532	79,189	488,915	190,704
								4,933,635
Total value of domestic fish ..	.....	357,347	.....	135,401	.....	1,035,608	.....	408,110
Total value of foreign fish	.....	135	.....	6,277	.....	225,612	.....	
1885.								
Codfish, haddock, hake, and pollock, dried, smoked, and cured ..... pounds..	6,506,931	250,416	1,547,328	97,601	9,138,995	334,162	18,178,987	724,858
Mackerel, pickled....barrels..	11,468	61,013	1,698	20,666	9,842	50,034	24,512	139,663
Salmon:								
Canned	.....	577	.....	18,542	.....	117,104	.....	2,260,567
Other.....	.....	319	.....	6,830	.....	22,951	.....	82,114
Fish, fresh, n. e. s ....pounds	.....	.....	.....	.....	140,769	7,275	1,035,242	33,350
Fish, dried, smoked, and cured, n. e. s ..... pounds..	1,081,136	31,601	321,273	24,881	2,425,432	98,645	6,517,597	354,257
Fish, pickled, n. e. s..barrels..	19,913	93,653	246	1,412	12,643	56,951	35,492	170,507
Shell-fish:								
Oysters	.....	260	.....	3,822	.....	64,393	.....	715,619
Other.....	.....	47	.....	14,590	.....	115,757	.....	411,984
Whale and fish oil...gallons..	261	99	.....	.....	384,127	135,111	977,768	321,227
								5,214,146
Total value of domestic fish ..	.....	437,985	.....	188,344	.....	1,002,383	.....	257,348
Total value of foreign fish	.....	86	.....	4,220	.....	191,999	.....	
1886.								
Codfish, haddock, hake, and pollock, dried, smoked, and cured ..... pounds..	6,591,186	241,899	1,670,638	101,386	6,963,604	236,856	15,664,195	602,934
Mackerel, pickled....barrels..	12,851	57,410	2,757	21,805	12,605	72,610	28,505	143,847
Salmon:								
Canned	.....	132	.....	17,165	.....	72,604	.....	1,875,109
Other.....	.....	563	.....	6,785	.....	12,277	.....	43,450
Fish, fresh, n. e. s ....pounds..	.....	.....	.....	.....	59,653	3,519	913,114	29,734
Fish, dried, smoked, and cured, n. e. s ..... pounds..	1,133,425	32,542	270,442	19,176	2,182,743	79,111	5,644,202	287,377
Fish, pickled, n. e. s..barrels..	18,345	76,203	604	3,404	10,011	50,208	30,866	144,341
Shell-fish:								
Oysters	.....	381	.....	3,993	.....	59,575	.....	732,019
Other.....	.....	81	.....	14,255	.....	49,749	.....	350,090
Whale and fish oil...gallons..	193	67	141	68	743,818	223,342	1,184,871	361,171
								4,570,072
Total value of domestic fish ..	.....	409,278	.....	188,037	.....	849,851	.....	281,046
Total value of foreign fish	.....	58,384	.....	4,341	.....	155,326	.....	

No. 62.—STATEMENT of the PRODUCTS of the AMERICAN WHALE FISHERIES brought into the United States for each of the Years ending June 30, from 1869 to 1886, inclusive.

YEARS ENDING JUNE 30—	OILS.				Whalebone or baleen, split or unsplit.		Ambergris.		Other whale products.	Other products of the American whale fisheries.	TOTAL VALUE.
	Sperm.		Other whale.								
	Galls.	*Dolls.*	*Galls.*	*Dolls.*	*Lbs.*	*Dolls.*	*Lbs.*	*Dolls.*	*Dolls.*	*Dolls.*	*Dolls.*
1869	1,448,919	2,733,641	4,278,715	2,267,026	671,064	633,368	.....	.....	21,846	96	5,655,977
1870	1,723,563	2,652,676	2,302,953	1,785,815	640,199	531,797	.....	.....	110	333	4,970,731
1871	1,327,984	1,645,117	2,215,085	1,303,645	652,781	421,785	.....	.....	410	181	3,371,138
1872	1,419,588	1,884,891	1,071,841	655,927	107,705	119,109	.....	.....	.....	185	2,660,112
1873	1,486,016	2,113,494	1,512,296	876,140	391,060	336,704	.....	.....	457	1,432	3,328,227
1874	879,839	1,250,987	1,377,401	775,919	342,221	264,990	.....	.....	.....	.....	2,291,896
1875	1,090,951	1,723,119	1,414,186	847,530	328,217	270,089	5	50	.....	214	2,841,002
1876	1,281,635	1,884,229	1,112,861	629,398	210,415	221,548	15	1,454	.....	750	2,737,379
1877	1,337,074	1,739,821	802,973	498,266	105,949	204,301	.....	.....	.....	50	2,442,438
1878	1,300,959	1,330,266	977,671	457,851	266,293	404,467	132	21,000	.....	.....	2,213,584
1879	1,285,454	1,100,004	1,091,930	451,450	228,486	412,489	81	8,781	2,300	2,087	1,977,111
1880	1,119,685	1,025,634	1,238,877	520,245	293,196	492,624	5,821	8,305	.....	600	2,047,408
1881	1,042,294	997,589	1,228,262	416,316	409,262	379,600	7	975	.....	50	1,794,530
1882	994,840	928,966	1,359,777	527,922	414,768	439,394	.....	.....	2,044	4,504	1,902,830
1883	810,959	847,996	946,938	516,182	340,571	478,419	183	23,450	810	17,550	1,884,407
1884	802,117	780,828	664,589	367,513	185,317	352,964	31	4,960	.....	11,088	1,517,353
1885	686,525	558,312	1,041,089	437,933	332,556	574,947	.....	.....	.....	2,150	1,573,342
1886	879,676	727,534	995,851	378,077	440,237	638,111	260	15,600	.....	8,873	1,768,195

No. 63.—STATEMENT showing, by STATES and CUSTOMS DISTRICTS, the Number and Tonnage of VESSELS of the United States engaged in the COD and MACKEREL FISHERIES, June 30, 1886.

[Prepared by the Bureau of Navigation.]

STATES AND CUSTOMS DISTRICTS IN WHICH DOCUMENTED.	Vessels over 20 tons.		Vessels under 20 tons.		TOTAL.	
MAINE.	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
Passamaquoddy	12	628.06	16	215.72	28	843.78
Machias	2	44.52	21	281.64	23	326.16
Frenchman's Bay	26	1,885.88	26	273.22	52	2,159.10
Castine	36	2,513.22	18	252.90	54	2,766.12
Bangor	.....	.....	4	64.55	4	64.55
Belfast	31	1,454.21	29	308.90	60	1,763.11
Waldoborough	50	1,073.92	64	780.98	114	1,854.90
Wiscasset	33	1,991.76	32	351.47	65	2,343.23
Bath	2	144.52	7	65.94	9	210.46
Portland and Falmouth	98	6,346.12	37	528.06	135	6,874.18
Saco	1	52.51	6	51.19	7	103.70
Kennebunk	20	1,346.38	9	93.48	29	1,439.86
York	.....	.....	3	36.03	3	36.03
Total	311	17,481.10	272	3,304.08	583	20,785.18
NEW HAMPSHIRE.						
Portsmouth	13	540.19	5	74.56	18	614.75
MASSACHUSETTS.						
Newburyport	8	280.47	10	104.47	18	
Gloucester	384	27,888.54				
Salem and Beverly						

No. 63.—NUMBER and TONNAGE of VESSELS of the UNITED STATES ENGAGED in the COD and MACKEREL FISHERIES, 1886—Continued.

STATES AND CUSTOMS DISTRICTS IN WHICH DOCUMENTED.	Vessels over 20 tons.		Vessels under 20 tons.		TOTAL.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
RHODE ISLAND.						
Providence	-----	----------	14	126.26	14	126.26
Bristol and Warren	-----	----------	4	39.48	4	39.48
Newport	15	1,470.20	27	310.12	42	1,780.32
Total	15	1,470.20	45	475.86	60	1,946.06
CONNECTICUT.						
Stonington	23	1,090.08	33	328.56	56	1,418.64
New London	32	1,424.85	24	353.01	56	1,777.86
Total	55	2,514.93	57	681.57	112	3,196.50
NEW YORK.						
New York	19	736.80	44	276.60	63	1,013.40
Sag Harbor	20	3,008.15	20	181.33	40	3,189.48
Total	39	3,744.95	64	457.93	103	4,202.88
NEW JERSEY.						
Great Egg Harbor	-----	----------	1	17.28	1	17.28
VIRGINIA.						
Cherrystone	1	22.26	-----	----------	1	22.26
NORTH CAROLINA.						
Beaufort	1	33.22	-----	----------	1	33.22
FLORIDA.						
Pensacola	10	351.05	3	40.05	13	391.10
CALIFORNIA.						
San Diego	-----	----------	3	29.14	3	29.14
Wilmington	-----	----------	1	19.81	1	19.81
San Francisco	-----	----------	2	13.01	2	13.01
Total	-----	----------	6	61.96	6	61.96
OREGON.						
Willamette	-----	----------	1	30.70	1	30.70
Grand total	1,096	73,445.34	643	7,259.47	1,739	80,704.81

SUMMARY BY STATES.

Maine	311	17,481.10	272	3,304.08	583	20,785.18
New Hampshire	13	540.19	5	74.56	18	614.75
Massachusetts	651	47,287.44	189	2,115.48	840	49,402.92
Rhode Island	15	1,470.20	45	475.86	60	1,946.06
Connecticut	55	2,514.93	57	681.57	112	3,196.50
New York	39	3,744.95	64	457.93	103	4,202.88
New Jersey	-----	----------	1	17.28	1	17.28
Virginia	1	22.26	-----	----------	1	22.26
North Carolina	1	33.22	-----	----------	1	33.22
Florida	10	351.05	3	40.05	13	391.10
	-----	----------	6	61.96	6	61.96
	-----	----------	1	30.70	1	30.70
						80,704.81

No. 64.—STATEMENT showing the NUMBER and TONNAGE of VESSELS of the United States engaged in the WHALE FISHERIES, June, 30, 1886.

[Prepared by the Bureau of Navigation.]

PORTS.	No.	Tons.
Boston, Mass	3	286.26
Barnstable, Mass	12	1,107.69
Edgartown, Mass	2	408.50
New Bedford, Mass. (sail)	80	19,939.72
New Bedford, Mass. (steam)	2	790.27
New London, Conn	5	605.92
Total	104	23,138.36

No. 65.—STATEMENT showing the TONNAGE of the United States MERCHANT MARINE employed in the FISHERIES, from 1789 to 1886.

[Prepared by the Bureau of Navigation.]

YEAR ENDING—	WHALE FISHERIES.			COD FISHERIES.			MACKEREL FISHERIES.	Total employed in the fisheries.
	Registered vessels.	Enrolled vessels.	Total.	Enrolled vessels.	Licensed vessels under 20 tons.	Total.	Enrolled vessels.	
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Dec. 31—								
1789	.....	.....	.....	9,062	.....	9,062	.....	9,062
1790	.....	.....	.....	28,348	.....	28,348	.....	28,348
1791	.....	.....	.....	32,542	.....	32,542	.....	32,542
1792	.....	.....	.....	32,062	.....	32,062	.....	32,062
1793	.....	.....	.....	28,974	1,985	30,959	.....	30,959
1794	.....	4,129	4,129	17,498	5,550	23,048	.....	27,177
1795	.....	3,163	3,163	24,887	6,046	30,933	.....	34,096
1796	.....	2,364	2,364	28,509	6,453	34,962	.....	37,326
1797	.....	1,104	1,104	33,406	7,222	40,628	.....	41,732
1798	.....	763	763	35,477	7,269	42,746	.....	43,509
1799	5,055	592	5,647	23,933	6,046	29,979	.....	35,626
1800	2,814	652	3,466	22,307	7,120	29,427	.....	32,893
1801	2,349	736	3,085	31,280	8,102	39,382	.....	42,467
1802	2,621	580	3,201	32,988	8,534	41,522	.....	44,723
1803	11,247	1,143	12,390	43,416	8,396	51,812	.....	64,202
1804	12,016	323	12,339	43,088	8,926	52,014	.....	64,353
1805	5,117	898	6,015	48,479	8,986	57,465	.....	63,480
1806	9,778	729	10,507	50,353	8,830	59,183	.....	69,690
1807	8,144	907	9,051	60,690	9,616	70,306	.....	79,357
1808	3,802	724	4,526	43,598	8,400	51,998	.....	56,524
1809	3,204	573	3,777	26,110	8,377	34,487	.....	38,264
1810	3,250	339	3,589	26,251	8,577	34,828	.....	38,417
1811	5,245	54	5,299	34,361	8,873	43,234	.....	48,533
1812	1,988	942	2,930	21,822	8,637	30,459	.....	33,389
1813	2,153	789	2,942	11,255	8,622	19,877	.....	22,819
1814	.....	562	562	8,863	8,992	17,855	.....	18,417
1815	.....	1,230	1,230	26,510	10,427	36,937	.....	38,167
1816	.....	1,168	1,168	37,879	10,247	48,126	.....	49,294
1817	4,874	350	5,224	53,990	10,817	64,807	.....	70,031
1818	16,135	615	16,750	58,552	10,555	69,107	.....	85,857
1819	31,700	686	32,386	65,045	11,033	76,078	.....	108,464
1820	35,391	1,054	36,445	60,843	11,197	72,040	.....	108,485
1821	26,071	1,924	27,995	51,352	10,941	62,293	.....	90,288
1822	45,449	3,134	48,583	58,405	10,821	69,226	.....	117,809
1823	39,918	585	40,503	67,041	11,214	78,255	.....	118,758
1824	33,166	180	33,346	68,239	9,208	77,447	.....	110,793
1825	35,379	.....	35,379	70,626	10,836	81,462	.....	116,841
1826	41,757	227	41,984	63,535	10,121	73,656	.....	115,640
1827	45,653	339	45,992	73,709	10,230	[illegible]	[illegible]	[illegible]
1828	54,621	180	54,801	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1829	57,384	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1830	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

No. 65.—TONNAGE EMPLOYED IN THE FISHERIES, 1789 to 1886, &c.—Cont'd.

YEAR ENDING—	WHALE FISHERIES.			COD FISHERIES.[a]			MACKEREL FISHERIES.[a]	Total employed in the fisheries.
	Registered vessels.	Enrolled vessels.	Total	Enrolled vessels.	Licensed vessels under 20 tons.	Total.	Enrolled vessels.	
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Dec. 31—								
1832	72,869	377	73,246	51,725	3,303	55,028	47,428	175,702
1833	101,158	478	101,636	58,569	4,152	62,721	48,726	213,083
1834	108,060	364	108,424	52,473	3,931	56,404	61,082	225,910
Sept. 30—								
1835[b]	97,649	----------	97,649	72,374	4,964	77,338	64,443	239,420
1836	144,681	1,573	146,254	58,414	4,893	63,307	46,424	255,985
1837	127,242	1,895	129,137	75,055	5,497	80,552	46,811	256,500
1838	119,630	5,230	124,860	63,974	6,090	70,084	56,649	251,593
1839	131,845	440	132,285	65,167	7,091	72,258	35,984	240,527
1840	136,927	----------	136,927	67,927	8,109	76,036	28,269	241,232
1841	157,405	----------	157,405	60,556	5,996	66,552	11,321	235,278
1842	151,613	377	151,990	49,942	4,863	54,805	16,097	222,892
June 30—								
1843[b]	152,375	142	152,517	54,901	6,323	61,224	11,776	225,517
1844	168,294	320	168,614	78,179	7,046	85,225	16,171	270,010
1845	190,696	207	190,903	69,826	7,165	76,991	21,414	289,308
1846	186,980	440	187,420	72,516	6,802	79,318	36,463	303,201
1847	193,859	----------	193,859	70,178	7,503	77,681	31,451	302,991
1848	192,180	433	192,613	82,652	7,195	89,847	43,558	326,018
1849	180,186	----------	180,186	73,882	7,874	81,756	42,942	304,884
1850	146,017	----------	146,017	85,646	8,160	93,806	58,112	297,935
1851	181,644	----------	181,644	87,476	8,141	95,617	50,539	327,800
1852	193,798	----------	193,798	102,659	7,914	110,573	72,546	376,917
1853	193,203	----------	193,203	99,990	9,238	109,228	59,850	362,281
1854	181,901	----------	181,901	102,194	9,734	111,928	35,041	328,870
1855	186,778	70	186,848	102,928	8,987	111,915	21,625	320,388
1856	189,213	248	189,461	95,816	6,636	102,452	29,887	321,800
1857	195,772	70	195,842	104,573	7,295	111,868	28,328	336,038
1858	198,594	----------	198,594	110,896	8,356	119,252	29,594	347,445
1859	185,728	----------	185,728	120,577	9,060	129,637	27,070	342,430
1860	166,841	----------	166,841	127,508	9,145	136,653	26,111	329,605
1861	145,734	----------	145,734	127,311	10,535	137,846	54,795	338,375
1862	117,714	----------	117,714	122,863	10,738	133,601	80,596	331,911
1863	99,228	----------	99,228	106,560	10,730	117,290	51,019	267,537
1864	95,145	----------	95,145	92,745	10,997	103,742	55,499	254,386
1865	84,233	6,283	90,516	59,227	5,958	65,185	41,209	196,910
1866	105,170	----------	105,170	42,797	8,845	51,642	46,589	203,401
1867	52,384	----------	52,384	36,709	7,858	44,567	31,498	128,449
1868	71,343	----------	71,343	74,763	9,124	83,887	----------	155,230
1869	70,202	----------	70,202	55,165	7,539	62,704	----------	132,906
1870	67,954	----------	67,954	82,612	8,848	91,460	----------	159,414
1871	61,490	----------	61,490	82,902	9,963	92,865	----------	154,355
1872	51,608	----------	51,608	87,403	10,144	97,547	----------	149,155
1873	44,755	----------	44,755	99,542	9,977	109,519	----------	154,274
1874	39,108	----------	39,108	68,490	9,800	78,290	----------	117,398
1875	38,229	----------	38,229	68,703	11,504	80,207	----------	118,436
1876	39,116	----------	39,116	77,314	10,488	87,802	----------	126,918
1877	40,593	----------	40,593	79,678	11,407	91,085	----------	131,678
1878	39,700	----------	39,700	71,560	11,987	86,547	----------	126,247
1879	40,028	----------	40,028	66,543	13,342	79,885	----------	119,913
1880	38,408	----------	38,408	64,935	12,603	77,538	----------	115,946
1881	38,551	----------	38,551	66,365	9,771	76,136	----------	114,687
1882	32,802	----------	32,802	67,015	10,848	77,863	----------	110,665
1883	32,414	----------	32,414	84,322	10,716	95,038	----------	127,452
1884	27,249	----------	27,249	72,609	10,331	82,940	----------	110,189
1885	25,184	----------	25,184	73,975	8,590	82,565	----------	107,719
1886	23,138	----------	23,138	73,445	7,260	80,705	----------	103,843

[a] Mackerel fisheries included with cod fisheries since 1867.

[b] Nine months.

No. 66.—The PRODUCTS, &c., of the FISHERIES of the UNITED STATES in 1879.

(From the Census.)

STATES AND TERRITORIES.	GRAND TOTAL.			PERSONS EMPLOYED.	
	Persons employed.	Capital invested.	Value of products.	Fishermen.	Shoremen.
	No.	*Dollars.*	*Dollars.*	*No.*	*No.*
Alabama	635	38,200	119,275	545	90
Alaska	6,130	447,000	2,661,640	6,000	130
California	3,094	1,139,675	1,860,714	2,089	1,005
Connecticut	3,131	1,421,020	1,456,866	2,585	546
Delaware	1,979	268,231	997,695	1,662	317
Florida	2,480	406,117	643,227	2,284	196
Georgia	899	78,770	119,993	809	90
Illinois	300	83,400	60,100	265	35
Indiana	52	29,360	32,740	45	7
Louisiana	1,597	93,621	392,610	1,300	297
Maine	11,071	3,375,994	3,614,178	8,110	2,961
Maryland	26,008	6,342,443	5,221,715	15,873	10,135
Massachusetts	20,117	14,334,450	8,141,750	17,165	2,952
Michigan	1,781	442,665	716,170	1,600	181
Minnesota	35	10,160	5,200	30	5
Mississippi	186	8,800	22,540	110	76
New Hampshire	414	209,465	176,684	376	38
New Jersey	6,220	1,492,202	3,176,589	5,659	561
New York	7,266	2,629,585	4,380,565	5,650	1,616
North Carolina	5,274	506,561	845,695	4,729	545
Ohio	1,046	473,800	518,420	925	121
Oregon	6,835	1,131,350	2,781,024	2,795	4,040
Pennsylvania	552	119,810	320,050	511	41
Rhode Island	2,310	596,678	880,915	1,602	708
South Carolina	1,005	66,275	212,482	964	41
Texas	601	42,400	128,300	491	110
Virginia	18,864	1,914,119	3,124,444	16,051	2,813
Washington	744	30,358	181,372	729	15
Wisconsin	800	222,840	253,100	730	70
New England States	37,043	19,937,607	14,270,393	29,838	7,205
Middle States, exclusive of Great Lake fisheries	14,981	4,426,078	8,676,579	12,584	2,397
Southern Atlantic States	52,418	8,951,725	9,602,737	38,774	13,644
Gulf States	5,131	545,584	1,227,544	4,382	749
Pacific States and Territories	16,803	2,748,383	7,484,750	11,613	5,190
Great Lakes	5,050	1,345,975	1,784,050	4,493	557
The United States	131,426	37,955,349	43,046,053	101,684	29,742

STATES AND TERRITORIES.	APPARATUS AND CAPITAL.						
	Vessels.			Boats.		Value of minor apparatus and outfit.	Other capital, including shore property.
	Number.	Tonnage.	Values.	Number.	Value.		
			Dollars.		*Dollars.*	*Dollars.*	*Dollars.*
Alabama	24	317.20	14,585	119	10,215	7,000	6,400
Alaska				3,000	60,000	7,000	380,000
California	49	5,246.80	535,350	853	91,485	205,840	307,000
Connecticut	291	9,215.95	514,050	1,173	73,585	375,535	457,850
Delaware	69	1,226.00	51,600	839	33,227	70,324	113,080
Florida	124	2,152.97	272,645	1,058	28,508	39,927	65,037
Georgia	1	12.00	450	358	15,425	18,445	44,450
Illinois	3	209.73	8,500	101	2,000	11,900	61,000
Indiana	1	21.90	2,500	15	1,650	20,210	5,000
Louisiana	49	539.69	20,821	165	4,800	18,000	50,000
Maine	606	17,632.65	632,542	5,920	245,624	934,593	1,562,235
Maryland	1,450	43,500.00	1,750,000	2,825	186,448	297,145	4,108,850
Massachusetts	1,054	83,233.17	3,171,189	6,749	351,736	3,528,925	7,282,600
Michigan	36	914.42	98,500	454	10,345	272,920	60,900
Minnesota	1	33.59	5,000	10	900	3,760	500
Mississippi				58			
New Hampshire	23	1,019.05					
New Jersey							
New York							

No. 66.—The FISHERIES of the UNITED STATES in 1879—Continued.

APPARATUS AND CAPITAL.

STATES AND TERRITORIES.	Vessels.			Boats.		Value of minor apparatus and outfit.	Other capital including shore property.
	Number.	Tonnage.	Values.	Number.	Value.		
			Dollars.		*Dollars.*	*Dollars.*	*Dollars.*
South Carolina	22	337.32	15,000	501	9,790	25,985	15,500
Texas				167	15,000	4,400	23,000
Virginia	1,446	15,578.93	571,000	6,618	292,720	560,763	489,636
Washington		216.62	11,100	334	6,610	8,648	4,000
Wisconsin	11	220.25	26,700	319	24,975	145,165	26,000
New England States	2,066	113,602.59	4,562,131	14,787	739,970	5,038,171	9,597,335
Middle States, exclusive of Great Lake fisheries	1,210	23,566.93	1,382,000	8,293	546,647	674,951	1,822,480
Southern Atlantic States	3,014	60,886.15	2,375,450	13,331	640,508	1,145,878	4,789,886
Gulf States	197	3,009.86	308,051	1,252	50,173	52,823	134,537
Pacific States and Territories	56	5,463.42	546,450	5,547	404,695	467,238	1,330,000
Great Lakes	62	1,768,87	183,200	1,594	83,400	766,200	313,175
The United States	6,605	208,297.82	9,357 282	44,804	2,465,393	8,145,261	17,987,413

VALUE OF PRODUCTS BY FISHERIES.

STATES AND TERRITORIES.	General fisheries.	Whale fishery.	Seal fishery.	Menhaden fishery.	Oyster fishery.	Sponge fishery.	Marine salt industry.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Alabama	74,325		2,096,500		44,950		
Alaska	564,640	500	15,750				302,000
California	1,341,314	201,650	111,851		672,875		
Connecticut	383,887	32,048		256,205	687,725		
Delaware	309,029			941	15,950	200,750	
Florida	426,527				35,000		
Georgia	84,993						
Illinois	60,100				200,000		
Indiana	32,740				37,500		
Louisiana	192,610				4,730,476		
Maine	3,576,678			11,851	405,550		3,890
Maryland	479,388			61,769			
Massachusetts	5,581,204	2,089,337					
Michigan	716,170				10,000		
Minnesota	5,200				6,050		
Mississippi	12,540				2,080,625		
New Hampshire	170,634			146,286	1,577,050		
New Jersey	949,678			1,114,158	60,000		
New York	1,689,357	408					
North Carolina	785,287						
Ohio	518,420		4,300		187,500		
Oregon	2,776,724				356,925		
Pennsylvania	132,550			221,748	20,000		
Rhode Island	302,242				47,300		
South Carolina	192,482				2,218,376		
Texas	81,000			303,829	10,000		
Virginia	602,239		61,412				
Washington	109,960						
Wisconsin	253,100						3,890

No. 66.—The FISHERIES of the UNITED STATES in 1879—Continued.

The volume of the United States Census for 1880, containing the complete fishery statistics, has not yet been published. The following data, however, have been obtained from the Census Bulletins published from time to time. This information is given in five groups, viz:

I.—The New England States.
II.—The Middle Atlantic States.
III.—The Southern Atlantic States.
IV.—The Pacific States and Territories.
V.—The Great Lakes.

No data are accessible as to the fisheries of the Gulf States other than is contained in the preceding table.

I.—The New England States.

MAINE.

THE SEA FISHERIES.

Quantities and values of sea products as they come from the water.

Kinds of products.	Quantity.	Value.
		Dollars.
Grand total.....pounds..	202, 048, 449	1, 790, 849
First products:		
Mixed fish.....do....	38, 486, 060	297, 216
Cod.....do....	52, 494, 325	419, 955
Hake.....do....	23, 597, 730	58, 994
Haddock.....do....	12, 817, 075	80, 871
Pollock.....do....	5, 220, 000	20, 880
Cusk.....do....	1, 965, 600	14, 742
Mackerel.....do....	28, 594, 455	354, 300
Herring.....do....	21, 455, 192	122, 596
Total fish.....do....	184, 630, 437	1, 369, 554
Lobsters.....pounds..	14, 234, 182	268, 739
Clams.....bush..	*a*318, 383	90, 056
Enhancement in value of Southern oysters.....	.....	37, 500
Other marine products.....	.....	25, 000

a An allowance of 10 pounds of meat is made for each bushel of clams.

Quantities and values of the sea products as put upon the market.

Kinds of products.	Weight when fresh.	Weight when prepared.	Bulk.	Value as sold.
	Pounds.	*Pounds.*		*Dollars.*
Grand total.....	202, 048, 449	.....	.....	3, 614, 178
Fresh fish.				
For food.....	16, 597, 300	.....	.....	207, 963
For bait.....	17, 330, 000	.....	86, 650 barrels.....	64, 988
For fertilizer.....	2, 790, 000	.....	13, 950 barrels.....	6, 575
Total.....	36, 717, 300	.....	.....	279, 526
Dry fish.				

No. 66.—The FISHERIES of the UNITED STATES in 1879—MAINE—Cont'd.

Quantities and values of the sea products as put upon the market—Continued.

Kinds of products.	Weight when fresh.	Weight when prepared.	Bulk.	Value as sold.
				Dollars.
Pickled fish.	*Pounds.*	*Pounds.*		524,055
Mackerel	27,342,000	18,228,000	91,140 barrels	73,395
Herring:				
Ordinary	6,116,250	4,893,000	24,465 barrels	29,078
Russian sardines and anchovies	2,703,625	1,673,000	8,365 barrels	25,885
Miscellaneous	1,747,100	1,035,400	5,177 barrels	
Total	37,908,975	25,829,400	129,147 barrels	652,413
Smoked fish.				
Herring:				
Ordinary	3,751,942	2,710,778	318,915 boxes	63,783
Bloaters	2,387,000	1,723,333	51,700 boxes	36,190
Haddock (Finnan haddies)	2,899,300	1,414,500		78,175
Total	9,038,242	5,848,611		178,148
Canned fish.				
Mackerel	1,252,455		814,668 cans	96,749
Herring (sardines)	6,496,375		7,500,084 cans	772,176
Miscellaneous	21,660		12,996 cans	1.928
Total	7,770,490		8,327,748 cans	870,853
Lobsters.				
Fresh	4,739,898			173,796
Canned	9,494,284		1,831,201 cans	238,280
Total	14,234,182			412,076
Clams.				
For food	1,090,810		109,081 bushels	38,178
For bait	1,781,640		178,164 bushels=12,726 barrels	63,630
Canned	311,380		31,138 bushels=456,028 cans	47,318
Total	3,183,830			149,126
Miscellaneous.				
Fish-oil			168,732 gallons	67,492
Sounds		131,098		117,988
Marine products used for fertilizers				25,000
Enhancement in value of Southern oysters in transporting and transplanting				37,500
Total				247,980

THE RIVER FISHERIES.

Quantities and values of the more important species, and the total quantity and value of the products.

Kinds of products.	Quantity.	Value as sold.
		Dollars.
Total fresh fish:		
Taken (pounds)	4,730,244	
As sold (do)	3,794,180	125,046
Salmon (number)	10,064	21,859
Shad:		
Used fresh (number)	132,891	
Canned (barrels)	384	11,876
	660,083	

No. 66.—The FISHERIES of the UNITED STATES in 1879—MAINE—Cont'd.

Summary of the quantity of each of the various kinds of fish and other aquatic species taken, and the value of same after preparation for the market.

Kinds of products.	For food.				
	Used fresh.	Used for drying.	Used for pickling.	Used for smoking.	Used for canning.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Total	24,273,974	93,195,430	39,424,093	10,407,402	17,576,154
Alewives	330,042	.....	1,050,000	1,369,160	.....
Bass	26,760	.....	.....	.....	.....
Clams *a*	1,090,810	.....	.....	.....	311,380
Cod	3,100,000	52,494,325	400,000	.....	10,000
Cunners	100,000	.....	.....	.....	.....
Cusk	.....	1,965,600	.....	.....	.....
Eels	112,625	.....	.....	.....	.....
Flounders	447,300	.....	.....	.....	.....
Haddock	4,000,000	9,917,775	900,000	2,899,300	11,660
Hake	700,000	23,597,730	150,000	.....	.....
Halibut	600,000	.....	.....	.....	.....
Herring	4,300,000	.....	8,819,875	6,138,942	6,496,375
Lobster	4,739,898	.....	.....	.....	9,494,284
Mackerel	3,000,000	.....	27,342,000	.....	1,252,455
Mussels	.....	.....	.....	.....	.....
Oysters *g*	.....	.....	.....	.....	.....
Pollock	300,000	5,220,000	.....	.....	.....
Salmon	110,704	.....	.....	.....	.....
Sculpins	.....	.....	.....	.....	.....
Seaweed (numerous species)	.....	.....	.....	.....	.....
Shad	115,200	.....	465,118	.....	.....
Silver hake	.....	.....	.....	.....	.....
Smelts	809,635	.....	.....	.....	.....
Sturgeon	12,500	.....	.....	.....	.....
Swordfish	50,000	.....	297,100	.....	.....
Tomcod	328,500	.....	.....	.....	.....

Kinds of products.	For other purposes.		Total for food and other purposes.	
	Used for bait.	Used for fertilizer.	Fresh.	Value as sold.
	Pounds.	*Pounds.*	*Pounds.*	*Dollars.*
Total	19,111,640	2,790,000	206,778,693	3,739,224
Alewives	500,000	.....	*b* 3,249,220	38,823
Bass	.....	.....	26,760	2,568
Clams *a*	*c* 1,781,640	.....	3,183,830	149,126
Cod	.....	.....	56,004,325	*d* 656,753
Cunners	440,000	.....	540,000	3,200
Cusk	.....	.....	1,965,600	20,790
Eels	.....	.....	112,625	6,777
Flounders	4,238,000	190,000	4,875,300	16,088
Haddock	.....	.....	17,728,735	*e* 225,393
Hake	.....	.....	24,447,730	*f* 278,336
Halibut	.....	.....	600,000	26,000
Herring	7,000,000	1,940,000	34,695,192	1,043,722
Lobster	.....	.....	14,234,182	412,076
Mackerel	100,000	.....	31,694,455	659,304
Mussels	.....	.....	.....	10,000
Oysters *g*	.....	.....	.....	37,500
Pollock	.....	.....	5,520,000	38,000
Salmon	.....	.....	110,704	21,859
Sculpins	4,600,000	.....	4,600,000	11,500
Seaweed (numerous species)	.....	.....	.....	15,000
Shad	.....	.....	.....	.....

a The meats of the clams alone are considered in
clams in the shell.

No. 66.—The FISHERIES of the UNITED STATES in 1879—MAINE—Continued.

Showing the quantity of each of the various kinds of fish and other aquatic species taken, and the value of same after preparation for the market—Continued.

Kinds of products.	For other purposes.		Total for food and other purposes.	
	Used for bait.	Used for fertilizer.	Fresh.	Value as sold.
	Pounds.	*Pounds.*	*Pounds.*	*Dollars.*
Silver hake	400,000	350,000	750,000	1,300
Smelts	----------	----------	809,635	44,057
Sturgeon	----------	----------	12,500	600
Swordfish	----------	----------	347,100	6,215
Tomcod	52,000	310,000	a690,500	2,361

a The tomcod used for food are taken by the river fishermen, while those used for bait and fertilizer are captured in the weirs along the outer shore. The former are classed with the river and the latter with the sea products.

NOTE.—In this table the total "catch" for each species is given separately. The figures, in many instances, do not agree with the totals for the different species as shown in the preceding table of sea products, as all fish, of whatever kind, sold fresh for food, bait, or fertilizer, as well as the miscellaneous pickled and canned fish, are there, for convenience, classed as "mixed fish." In the 38,486,060 pounds there shown as mixed fish are included 3,510,000 pounds of cod, 850,000 pounds of hake, 4,911,660 pounds of haddock, 300,000 pounds of pollock, 3,100,000 pounds of mackerel, 13,240,000 pounds of herring, 500,000 pounds of alewives, 540,000 pounds of cunners, 4,875,300 pounds of flounders, 600,000 pounds of halibut, 4,600,000 pounds of sculpins, 750,000 pounds of silver hake, 347,100 pounds of swordfish, and 362,000 pounds of tomcod.

MASSACHUSETTS.

Quantities and values of fish taken, and quantity and value of fresh fish consumed.

Kinds of products.	Taken.		Consumed.	
	Quantities.	Values.	Quantities.	Values.
FRESH FISH.	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
Total	a341,935,982	3,494,910	124,101,621	1,608,523
Alewives	3,751,059	28,635	b2,512,134	16,246
Bass:				
Sea	80,550	4,833	80,550	4,833
Striped	4,273,841	28,796	287,955	28,796
Bluefish	97,000	2,910	4,238,234	127,147
Bonito	5,000	150	97,000	2,910
Butter-fish	172,216,955	1,544,311	5,000	150
Cod	160,500	803	23,796,570	356,948
Cunners	989,194	7,253	160,500	803
Cusk	395,100	19,755	334,144	2,340
Eels	571,470	8,572	395,100	19,755
Flounders	67,434	1,349	571,470	8,572
Frost-fish	24,092,890	295,210	67,434	1,349
Haddock	8,437,749	25,919	21,226,371	282,311
Hake	14,205,916	369,840	1,378,289	8,270
Halibut	7,794,780	62,998	9,111,216	318,893
Herring	61,422,608	781,299	c3,827,124	38,200
Mackerel	60	9	16,896,308	224,720
Mackerel, Spanish	26,066,077	39,677	60	9
Menhaden	33,574	1,007	d26,066,077	39,677
Perch	4,754,495	19,018	33,574	1,007
Pollock	220	33	1,100,736	4,403
Salmon	1,022,180	30,665	220	33
Scup	164,524	8,226	1,022,180	30,665
Shad	35,006	876	164,524	8,226
Smelts	103,310	3,616	35,006	876
	9,650	290	103,310	3,616
	[illegible]	19,203	9,650	290
			514,950	15,948
			373,335	13,067
			[illegible]	48,463

No. 66.—The FISHERIES of the UNITED STATES in 1879—MASSACHUSETTS—Continued.

Quantities and values of fish taken, and quantity and value of fresh fish consumed—Cont'd.

Kinds of products.	Weight of fish when fresh.		Weight of fish when preserved.		Enhancement of value.
	Quantities.	Values.	Quantities.	Values.	
DRIED FISH.	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*	*Dollars.*
Total	162,562,673	1,236,699	a62,122,008	b2,412,077	b1,175,378
Cod	148,327,885	1,886,623	56,054,757	2,176,881	990,258
Cusk	655,050	4,913	327,525	11,466	6,553
Haddock	2,866,519	12,899	1,089,137	27,770	14,871
Hake	7,059,460	17,649	3,181,296	65,182	47,533
Pollock	3,653,759	14,615	1,469,293	26,778	12,163
PICKLED FISH.					
Total	50,049,488	598,326	34,006,745	928,303	329,977
Alewives	972,050	9,720	777,650	15,553	5,833
Bluefish	29,607	296	18,220	455	159
Cod	92,500	740	46,250	1,156	416
Herring	3,967,656	24,798	3,174,125	47,612	22,814
Mackerel	44,526,300	556,579	29,684,200	853,420	296,841
Swordfish	217,000	3,255	124,000	4,030	775
Mixed fish	99,000	594	66,000	1,650	1,056
Halibut fins	32,875	657	26,300	1,052	395
Tongues and sounds	112,500	1,687	90,000	3,375	1,688
SMOKED FISH.					
Total	5,367,575	53,706	1,435,800	105,997	52,291
Alewives	266,875	2,669	160,125	4,003	1,334
Bluefish	6,000	90	2,000	100	10
Halibut	5,094,700	50,947	1,273,675	101,894	50,947

a Weight of the dried fish when whole; 5,000,000 pounds may be deducted for about 23,000,000 prepared as boneless.

b Includes $104,000 enhancement on boneless fish.

Miscellaneous products.

Kinds of products.		Quantity.	Value.
			Dollars.
Lobsters	pounds	4,315,416	158,229
Oysters	bushels	36,000	405,550
Clams	do	158,626	76,195
Quahaug and sea-clams	do	11,050	5,525
Scallops	gallons	7,028	3,514
Squid	barrels	1,125	6,750
Fish oil	gallons	333,699	144,208
Fish guano	tons	6,271	32,152
Fish spawn	barrels	3,725	12,105
Fish sounds (dried)	pounds	124,600	70,820
Marine salt	tons	346	3,890
Irish moss	pounds	465,000	16,275
Sea-weed	tons	4,000	4,000
Total			a937,513

a Includes $58,300, the value of fish balls, smelts, &c., packed in Boston.

Products of the whale fishery.

Kinds of products.	Quantity.	Value.
Sperm oil		
Whale oil		

No. 66.—The FISHERIES of the UNITED STATES in 1879.—MASSACHUSETTS—Continued.

Recapitulation, by customs districts, of total quantities and values of Sea Products, as placed upon the markets.

Customs districts.	Total.						Fresh fish.	
	Value of sea products as sold.	Fresh fish taken.	Value of fish when fresh.	Fish as sold.	Value of fish as sold.	Enhancement in value of fish in process of preparation.	Quantity.	Value.
	Dollars.	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*	*Dollars.*	*Pounds.*	*Dollars.*
Total	8,141,750	a341,935,982	3,494,910	221,666,174	5,054,900	b1,557,646	124,101,621	1,608,523
Newburyport	140,681	8,200,344	93,549	6,062,259	118,521	24,972	4,240,209	59,725
Gloucester	3,155,071	189,383,026	1,948,406	106,116,499	2,948,309	998,466	44,048,606	727,099
Salem	117,444	5,417,800	49,242	2,576,100	71,272	22,030	830,500	10,579
Marblehead	230,942	15,243,616	170,373	11,249,219	211,849	41,476	8,491,925	119,036
Boston	1,026,360	30,147,534	358,229	26,678,891	524,601	165,465	20,709,866	256,268
Plymouth	138,443	6,618,893	61,413	3,952,888	89,630	28,217	2,167,000	26,256
Barnstable	1,051,619	51,223,687	604,860	31,779,339	853,776	248,916	12,560,976	238,627
Nantucket	29,546	1,620,189	21,807	1,017,820	27,462	5,655	609,420	14,520
Edgartown	133,797	3,071,092	47,733	2,338,258	55,366	7,633	1,814,818	37,837
New Bedford	2,053,944	17,253,887	106,290	16,309,987	117,024	10,734	15,575,387	92,586
Fall River	63,903	13,755,914	33,008	13,584,914	37,090	4,082	13,052,914	25,990

Customs districts.	Dried fish.		Pickled fish.		Smoked fish.		Miscellaneous products.	Products of the whale fishery.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.		
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*	*Dollars.*	*Dollars.*
Total	62,122,008	2,412,077	34,006,745	928,303	1,435,800	105,997	c997,513	2,089,337
Newburyport	1,239,850	42,385	572,200	15,611	10,000	800	22,160	.....
Gloucester	42,850,143	1,634,103	17,967,750	487,107	1,250,000	100,000	205,762	1,000
Salem	1,450,400	52,214	295,200	8,479	.....	.....	46,172	.....
Marblehead	2,662,294	90,526	95,000	2,287	.....	.....	19,093	.....
Boston	750,000	d104,000 23,821	5,219,025	140,512	.....	.....	c486,321	15,438
Plymouth	1,777,888	63,144	8,000	230	.....	.....	48,813	.....
Barnstable	9,931,518	351,556	9,261,170	262,199	25,675	1,394	69,367	128,476
Nantucket	392,000	12,514	14,400	328	2,000	100	2,084	.....
Edgartown	461,315	15,976	4,000	100	58,125	1,453	31,017	47,414
New Bedford	606,600	21,838	128,000	2,600	.....	.....	39,911	1,897,009
Fall River	.....	.....	442,000	8,850	90,000	2,250	26,813	.....

a 39,855,000 additional pounds of fish taken but not utilized.

b About 60 per cent. of this enhancement may be credited to the vessel industry, and 40 per cent. to the shore industry.

c Includes 264,000 cans fish-balls, $38,500; 38,400 cans smelts, $4,800; 36,000 cans fish-chowder, $7,500; 36,000 cans clam-chowder, $7,500; total value, $58,300.

d Enhancement on fish prepared as "boneless" in Boston, but accounted for elsewhere.

No. 66.—The FISHERIES of the UNITED STATES IN 1879—NEW HAMPSHIRE and RHODE ISLAND.

NEW HAMPSHIRE.

Quantities and values of the fishery products as fresh and as prepared.

Kinds of products.	Weight of fish when fresh.	Weight of fish when prepared.	Bulk.	Value.
	Pounds.	*Pounds.*		*Dollars.*
Grand total	10,400,294	.....	.....	176,684
Fresh fish.				
For food	4,395,134	.....	.....	63,575
For bait and fertilizers	200,000	.....	1,000 barrels	375
Total	4,595,134	.....	.....	63,950
Cured fish.				
Dry fish	2,794,210	1,066,700	.....	33,920
Pickled fish	2,573,350	1,741,400	.....	48,434
Total	5,367,560	2,808,100	.....	82,354
Shell-fish.				
Lobsters	250,000	.....	.....	7,500
Clams	179,600	.....	17,960 bushels	8,980
Oysters	8,000	.....	1,000 bushels.....	a6,050
Total	437,600	.....	.....	22,530
Miscellaneous.				
Fish oil	.....	.....	8,900 gallons	6,500
Fish sounds	.....	1,500	.....	1,350
Total	.....	.....	.....	7,850

a Includes $5,250 enhancement in value of Southern oysters.

NOTE.—The proportion of different species included in the fresh and cured fish is estimated as follows: Alewives, 425,000 pounds; cod, 5,447,597 pounds; cusk, 38,000 pounds; haddock, 644,347 pounds; hake, 397,500 pounds; halibut, 25,000 pounds; herring, 108,750 pounds; mackerel, 2,573,000 pounds; pollock, 75,500 pounds; swordfish, 20,000 pounds; mixed fish, 208,000 pounds,

RHODE ISLAND.

Quantities and values of the fishery products as fresh and as prepared.

Kinds of products.	Weight of fish when fresh.	Weight of fish when prepared.	Bulk.	Value.
	Pounds.	*Pounds.*		*Dollars.*
Grand total	88,049,978	.....	.....	880,915
Fresh fish.				
For food	a10,838,328	.....	.....	184,482
For bait and fertilizers	1,355,000	.....	6,775 barrels.....	2,432
Total	12,193,328	.....	.....	186,914
Cured fish.				
Dry cod	1,931,800	768,720	.....	26,270
Pickled alewives	505,000	404,000	.....	6,060
Smoked alewives	2,333,000	1,400,000	.....	7,000
Total	4,769,800	2,572,720	.....	39,330
Shell-fish.				
Lobsters	423,250	.....	.....	15,871
Clams	539,600	.....	53,960 bushels.....	48,564
Scallops	124,600	.....	17,800 gallons	8,900
Oysters	1,305,600	.....	163,200 bushels....	b356,925
Total	2,393,050	.....	.....	430,260
Miscellaneous.				
Menhaden, for oil and scrap	68,693,800	.....	270,482 gallons oil; 10,590 tons scrap.	221,748
Cod oil	.....	.....	3,250 gallons	
Squeteague sounds	.....			
Irish moss				

No. 66.—The FISHERIES of the UNITED STATES in 1879—CONNECTICUT.

CONNECTICUT.

Quantities and values of the fishery products as fresh and as prepared.

Kinds of products.	Weight of fish when fresh.	Weight of fish when prepared.	Bulk.	Value.
	Pounds.	*Pounds.*		*Dollars.*
Grand total	83,509,367			1,456,866
Fresh fish.				
For food	a7,884,982		23,000 barrels	280,960
For bait and fertilizers	4,600,000			7,500
Total	12,484,982			288,460
Pickled fish.				
Alewives	500,000	400,000		6,000
Mackerel	1,266,900	844,600		24,282
Total	1,766,900	1,244,600		30,282
Shell-fish.				
Lobsters	723,885			27,145
Clams	750,000		75,000 bushels	38,000
Oysters	2,691,600		336,450 bushels	b672,875
Total	4,165,485			738,020
Miscellaneous.				
Menhaden, for oil and scrap	65,092,000		256,300 galls. oil; 9,000 tons scrap	256,205
Whale oil			22,144 gallons	11,248
Whalebone			10,400 pounds	20,800
Sea-elephant oil			42,000 gallons	21,420
Fur-seal skins			9,275 skins	90,431
Total	65,092,000			400,104

a The proportion of different kinds of fish in this amount is estimated as follows. Alewives, 270,000 pounds; sea bass, 351,900 pounds; striped bass, 36,900 pounds; blackfish, or tautog, 173,550 pounds; bluefish, 514,500 pounds; cod, 2,738,000 pounds; eels, 80,250 pounds; flounders and flat-fish, 142,600 pounds; halibut, 830,000 pounds; mackerel, 37,000 pounds; pollock, 20,000 pounds; scup or porgy, 930,000 pounds; shad, 1,318,032 pounds; smelts, 27,000 pounds; squeteague, 102,750 pounds; swordfish, 73,500 pounds; mixed fish, 239,000 pounds.

b Includes $286,250 enhancement on 515,000 bushels of Southern oysters.

II.—The Middle Atlantic States.

THE SEA FISHERIES.

Quantities of sea products, exclusive of oysters, and the value of same to the fishermen, by States.

States.	Grand total.		Fish for food.				
			Sold fresh.		Salted.		
	Sea products taken.	Value of same to fishermen.	Quantity.	Value to fishermen.	Fresh used.	Salted.	Value to fishermen.
						Barrels.	*Dollars.*

No. 66.—The FISHERIES of the UNITED STATES in 1879—THE MIDDLE ATLANTIC STATES—Continued.

Quantities of sea products, exclusive of oysters, &c., by States—Continued.

States.	Refuse fish for oil and fertilizers.				Terrapin.		
	Fish taken.	Oil produced.	Scrap produced.	Value of products as sold.	Number.	Estimated weight.	Value to fishermen.
	Pounds.	*Gallons.*	*Tons.*	*Dollars.*		*Pounds.*	*Dollars.*
Total	319,005,700	1,274,579	36,770	1,262,210	13,836	41,508	6,918
New York	288,891,200	1,186,682	32,210	1,114,158	600	1,800	300
New Jersey	29,614,600	87,447	4,545	147,111	3,000	9,000	1,500
Pennsylvania							
Delaware	a499,900	450	15	941	10,236	30,708	5,118

States.	Lobsters.		Soft crabs.			Hard crabs.		
	Quantity.	Value to fishermen.	Number.	Estimated weight.	Value to fishermen.	Number.	Estimated weight.	Value to fishermen.
	Pounds.	*Dollars.*		*Pounds.*	*Dollars.*		*Pounds.*	*Dollars.*
Total	291,950	10,948	4,161,039	1,387,013	173,376	5,378,463	1,792,821	66,859
New York	135,000	5,062	285,000	95,000	11,875	4,588,750	1,529,583	57,359
New Jersey	156,800	5,880	3,684,900	1,228,300	153,537	726,000	242,000	9,075
Pennsylvania								
Delaware	150	6	191,139	63,713	7,964	63,713	21,238	425

States.	Clams.						Value to fishermen of miscellaneous and secondary products.
	Soft clams.			Quahaugs.			
	Quantity.	Estimated weight shelled.	Value to fishermen.	Quantity.	Estimated weight shelled.	Value to fishermen.	
	Bushels.	*Pounds.*	*Dollars.*	*Bushels.*	*Pounds.*	*Dollars.*	*Dollars.*
Total	406,803	4,068,030	288,595	741,708	5,933,664	458,224	70,742
New York	340,775	3,407,750	255,581	349,480	2,795,840	262,110	b49,522
New Jersey	66,028	660,280	33,014	391,535	3,132,280	195,767	19,920
Pennsylvania							
Delaware				693	5,544	347	1,300

a Of this, 402,402 pounds (2,012 barrels), valued at $604, were composted.
b Including scallops and mussels for food, valued at $14,222.

THE RIVER AND LAKE FISHERIES.

Quantities of the river and lake products taken, and the value of same to the fishermen, by States.

States.	Grand total.		Alewives.		Shad.	
	Pounds.	Value to fishermen.	Pounds.	Value to fishermen.	Pounds.	Value to fishermen.
Total	Quantity					

No. 66.—The FISHERIES of the UNITED STATES in 1879—THE MIDDLE ATLANTIC STATES—Continued.

Quantities of river and lake products taken, &c., by States—Continued.

States.	Sturgeon.		Mixed river fish.		Lake fish.	
	Pounds.	Value to fishermen.	Pounds.	Value to fishermen.	Pounds.	Value to fishermen.
	Quantity.	*Dollars.*	*Quantity.*	*Dollars.*	*Quantity.*	*Dollars.*
Total	1,044,000	53,640	2,407,650	103,716	5,323,000	198,320
New York	144,000	8,640	540,000	15,880	4,070,000	154,870
New Jersey	300,000	15,000	502,000	24,100	----------	----------
Pennsylvania	150,000	7,500	370,400	17,620	1,253,000	43,450
Delaware	450,000	22,500	*b*995,250	46,116	----------	----------

a Including those salted for market and for home supply.
b Including 3,060 turtle, averaging 5 pounds apiece, worth $918.

THE OYSTER INDUSTRY.

Quantity of native oysters produced and the value of same to producer; also the quantity rehandled and the enhancement in value in preparation for the markets, by States.

States.	Native oysters produced.	Value of native oysters to fishermen.	Enhancement in value of other oysters in preparation for market.*a*		Total value of oysters as sold.
			Rehandled.	Amount of enhancement.	
	Bushels.	*Dollars.*	*Bushels.*	*Dollars.*	*Dollars.*
Total	*b*3,318,300	3,338,300	2,387,000	1,194,600	4,532,900
New York	1,043,300	1,043,300	1,065,000	533,750	1,577,050
New Jersey	1,975,000	1,970,000	237,500	110,625	2,080,625
Pennsylvania	----------	----------	250,000	187,500	187,500
Delaware	300,000	325,000	834,500	362,725	687,725

a This includes the transportation of oysters from distant waters or to other markets in oyster vessels; also the increase in value due to planting, fattening, and canning.
b Each bushel of oysters is estimated to yield 7 pounds of meats.

Summary, by States, of the quantities of fishery products, and the value of same to the producers.

States.	Grand total of food and miscellaneous products.		Miscellaneous products for fertilizers and other purposes.			
	products en.	same to men.	fertilizers.	of oil, scrap, compost.	e of other roducts.	value of mis- laneous prod- s.

No. 66.—The FISHERIES of the UNITED STATES in 1879—THE MIDDLE ATLANTIC STATES—Continued.

Summary, by States, of the total quantity of fishery products, &c.—Continued.

States.	Food products.						
	Fish sold fresh.		Fish salted.			Products other than fish.	
	Quantity.	Value to fishermen.	Fresh used.	Salted.	Value to fishermen.	Used.	Value to fishermen.
	Pounds.	*Dollars.*	*Pounds.*	*Barrels.*	*Dollars.*	*Pounds.*	*Dollars.*
Total	55,277,776	1,960,044	2,484,000	8,287	43,165	36,758,386	5,552,960
New York	29,273,900	1,045,748	90,000	300	1,800	15,268,073	2,183,559
New Jersey	15,348,226	514,125	935,000	3,117	16,035	19,253,660	2,479,398
Pennsylvania	2,923,000	132,200	10,000	40	350	.....	187,500
Delaware	7,732,650	267,971	1,449,000	4,830	24,980	2,236,653	702,503

Summary of the quantity of each of the more important food-fishes and other aquatic species taken in each State, and the total production of the fisheries of the Middle Atlantic States.

Species.	Totals by species.	New York.	New Jersey.	Pennsylvania.	Delaware.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Totals by States	413,525,862	333,523,173	65,151,486	2,933,000	11,918,203
Alewives	4,146,700	250,000	1,500,000	.....	2,396,700
Black drum	212,500	50,000	25,000	.....	137,500
Bluefish	6,710,800	3,000,000	3,635,000	30,000	45,800
Bonito	580,000	500,000	80,000	.....	.....
Butterfish	700,000	500,000	200,000	.....	.....
Catfish	498,200	50,000	135,000	117,000	196,200
Cod	5,247,000	3,580,000	1,667,000	.....	.....
Clams (soft)	4,068,030	3,407,750	660,280	.....	.....
Clams (quahaugs)	5,933,664	2,795,840	3,132,280	.....	5,544
Crabs	3,179,834	1,624,583	1,470,300	.....	84,951
Croakers	80,000	35,000	20,000	.....	25,000
Eels	2,036,300	1,361,300	551,000	.....	124,000
Flounders	1,091,500	1,000,000	75,000	.....	16,500
Halibut	100,000	100,000	.....	.....	.....
Lobsters	291,950	135,000	156,800	.....	150
Mackerel	750,000	750,000	.....	.....	.....
Menhaden	318,588,700	*a*288,931,200	*b*29,134,600	.....	*c*522,900
Mixed fresh-water fish	3,888,050	2,726,300	200,000	428,000	533,750
Mixed salt-water fish	2,419,126	1,534,000	*d*884,226	.....	900
Moonfish or banded porgy	160,000	110,000	50,000	.....	.....
Mullet	60,700	1,000	5,000	.....	54,700
Oysters	23,228,100	7,303,100	13,825,000	.....	2,100,000
Perch	1,711,500	545,000	630,000	60,000	476,500
Scup	1,550,000	1,500,000	50,000	.....	.....
Sea bass	1,461,200	750,000	160,000	550,000	1,200
Shad	5,207,200	2,733,600	864,000	559,600	1,050,000
Sheepshead	685,900	400,000	275,000	5,000	5,900
Smelt	205,000	200,000	5,000	.....	.....
Spanish mackerel	225,000	25,000	200,000	.....	.....
Spot, or Lafayette fish	1,079,100	200,000	230,000	.....	649,100
Squeteague	11,063,500	4,000,000	4,430,000	15,000	2,618,500
Striped bass	1,528,300	795,000	442,000	43,400	247,900
Sturgeon	1,164,000	144,000	300,000	150,000	570,000
Tautog	635,000	500,000	130,000	.....	5,000
Terrapin	41,508	1,800	9,000	.....	20,708
Tom-cod	205,000	200,000			
Trout (Mackinaw)					
Turtle (various salt					

No. 66.—The FISHERIES of the UNITED STATES in 1879—Continued.

III.—The Southern Atlantic States.

THE SEA FISHERIES.

Quantities of sea products taken, exclusive of oysters, and the value of same to the fishermen.

States.	Grand total.		Fish for food.				
			Sold fresh.		Salted.		
	Sea products taken.	Value of same to fishermen.	Quantity.	Value to fishermen.	Fresh used.	Salted.	Value to fishermen.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Barrels.*	*Dollars.*
Total	121,230,972	1,155,858	16,849,385	530,410	4,224,500	27,460	86,500
Maryland	6,081,667	88,451	775,000	23,250	20,000	80	500
Virginia	98,261,305	633,240	7,228,885	257,718	150,000	500	2,500
North Carolina	10,167,300	220,745	3,615,000	100,100	4,009,500	26,730	82,600
South Carolina	4,749,400	153,125	3,869,000	108,500	15,000	50	300
Georgia	492,000	19,225	360,000	11,500	----------	100	600
Eastern Florida	1,479,300	41,072	1,001,500	29,342	30,000		

States.	Refuse fish and fish for fertilizers.				Terrapin.		
	Fish taken.	Oil produced.	Crude dried scrap.	Value of product as sold.	Number.	Estimated weight.	Value to fishermen.
	Pounds.	*Gallons.*	*Tons.*	*Dollars.*		*Pounds.*	*Dollars.*
Total	94,668,800	214,335	10,573	319,780	121,600	364,800	37,200
Maryland	a4,050,000	10,575	300	11,851	10,000	30,000	4,000
Virginia	b88,213,800	203,760	10,273	303,829	55,200	165,600	18,550
North Carolina	c2,000,000	----------	----------	2,000	41,000	123,000	10,850
South Carolina	c100,000	----------	----------	700	7,800	23,400	1,950
Georgia	c25,000	----------	----------	300	6,600	19,800	1,650
Eastern Florida	280,000	----------	----------	1,100	1,000	3,000	200

States.	Green turtle.			Loggerheads and hawkbills.		
	Number.	Estimated weight.	Value to fishermen.	Number.	Estimated weight.	Value to fishermen.
	2,300	*Pounds.* 96,250	*Dollars.* 6,075	500	*Pounds.* 50,000	*Dollars.* 250
Total	----------	----------	----------	----------	----------	----------
Maryland	----------	----------	----------	----------	----------	----------
Virginia	300	6,000	50	300	30,000	150
North Carolina	100	2,000	25	200	20,000	100
South Carolina	----------	----------	----------	----------	----------	----------
Georgia	1,900	88,250	6,000	----------	----------	----------
Eastern Florida						

a 1,300,000 pounds composted and 147,000 pounds thrown away.
b 7,080,000 pounds composted.
c Most of these are thrown away.

No. 66.—The FISHERIES of the UNITED STATES in 1879—THE SOUTHERN ATLANTIC STATES—Continued.

Quantities of sea products taken, exclusive of oysters, &c.—Continued.

States.	Crabs.		
	Number.	Estimated weight.	Value to fishermen.
		Pounds.	*Dollars.*
Total	10,098,800	3,366,267	80,263
Maryland	3,500,000	1,166,667	46,850
Virginia	6,417,600	2,139,200	32,088
North Carolina	33,600	11,200	450
South Carolina	126,000	42,000	750
Georgia	21,600	7,200	125
Eastern Florida	.....	.....	.....

States.	Shrimp.			Clams (quahaugs).			Miscellaneous primary and secondary products.
	Quantity.	Estimated weight.	Value to fishermen.	Quantity.	Estimated weight.	Value to fishermen.	Value to fishermen.
	Bushels.	*Pounds.*	*Dollars.*	*Bushels.*	*Pounds.*	*Dollars.*	*Dollars.*
Total	23,450	820,750	49,500	98,777	790,220	41,410	a4,470
Maryland	.....	.....	.....	5,000	40,000	2,000	.....
Virginia	.....	.....	.....	45,477	363,820	18,555	.....
North Carolina	1,800	63,000	4,500	38,700	309,600	15,575	a4,470
South Carolina	18,000	630,000	37,500	6,000	48,000	3,300	.....
Georgia	1,600	56,000	4,000	3,000	24,000	1,650	.....
Eastern Florida	2,050	71,750	3,500	600	4,800	330	.....

a $408 of this for whale oil and "bone."

RIVER FISHERIES.

Quantities of river products taken, and the value of same to the fishermen, by States.

States.	Grand total.		Alewives.	
	Quantity.	Value to fishermen.	Quantity.	Value to fishermen.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*
Total	52,076,955	1,378,027	32,109,372	371,701
Maryland	15,430,903	402,788	a9,128,959	139,667
Virginia	12,752,064	272,828	b6,925,413	76,300
North Carolina	20,892,188	564,950	c15,520,000	142,784
South Carolina	1,043,850	39,357	400,000	9,000
Georgia	1,290,500	65,768	125,000	3,750
Eastern Florida	667,450	32,336	10,000	200

States.	Shad.		Sturgeon.		Mixed fish.	
	Quantity.	Value to fishermen.	Quantity.	Value to fishermen.	Quantity.	Value to fishermen.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
Total	10,863,942	654,900	1,610,708	67,112	7,492,933	284,314
Maryland	3,759,426	140,326	144,000	1,440	2,398,518	121,35[illegible]
Virginia	3,171,953	134,496	411,558	6,973	2,243,140	55,059
North Carolina	3,221,263	329,569	436,900	18,094	1,714,025	74,503
South Carolina	207,600	12,432	d261,250	15,675	175,000	[illegible]
Georgia	252,000	17,941	e354,000	[illegible]	[illegible]	[illegible]
Eastern Florida	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

No. 66.—The FISHERIES of the UNITED STATES in 1879—THE SOUTHERN ATLANTIC STATES—Continued.

THE OYSTER INDUSTRY.

Quantities, by States, of native oysters produced and the value of the same to the producer; also the quantity rehandled and the enhancement in value in preparation for the market.

States.	Native oysters produced.	Value to fishermen.	Enhancement in value of other oysters in preparation for market. (a)		Total value of oysters as sold.
			Rehandled.	Enhancement	
	Bushels.	*Dollars.*	*Bushels.*	*Dollars.*	*Dollars.*
Total	b17,747,320	4,718,636	9,275,622	2,350,216	7,068,852
Maryland	c10,600,000	2,650,000	7,653,492	2,080,476	4,730,476
Virginia	c6,837,320	1,948,636	1,622,130	269,740	2,218,376
North Carolina	170,000	60,000	----------	----------	60,000
South Carolina	50,000	20,000	----------	----------	20,000
Georgia	70,000	35,000	----------	----------	35,000
Eastern Florida	20,000	5,000	----------	----------	5,000

a This includes the transportation of oysters from distant waters or to other markets in oyster vessels; also the increase in value due to planting, fattening, and canning.

b Each bushel of oysters is estimated to yield seven pounds of meats.

c Many of the oysters landed by the Maryland fleet are taken in Virginia waters; the total for Maryland is therefore much larger than the actual production of Maryland waters, while that for Virginia is correspondingly low.

Summary, by States, of the total quantity of fish and other aquatic species taken, and the value of same to the producers.

States.	Grand total of food and miscellaneous products.		Miscellaneous products, for fertilizers and other purposes.			
	Fishery products taken.	Value of same to fishermen.	Fish for fertilizers.	Value of oil, scrap, and compost.	Value of other products.	Total value of miscellaneous products.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Dollars.*	*Dollars.*
Total	297,539,167	9,602,737	94,668,800	319,780	4,470	324,250
Maryland	95,712,570	5,221,715	4,050,000	11,851	----------	11,851
Virginia	158,874,609	3,124,444	88,213,800	303,829	----------	303,829
North Carolina	32,249,488	845,695	2,000,000	2,000	4,470	6,470
South Carolina	6,143,250	212,482	100,000	700	----------	700
Georgia	2,272,500	119,993	25,000	300	----------	300
Eastern Florida	2,286,750	78,408	280,000	1,100	----------	1,100

States.	Food products.						
	Fish sold fresh.		Fish salted.			Products other than fish.	
	Quantity.	Value to fishermen.	Fresh used.	Salted.	Value to fishermen.	Quantity.	Value to fishermen.
	Pounds.	*Dollars.*	*Pounds.*	*Barrels.*	*Dollars.*	*Pounds.*	*Dollars.*
Total	42,571,340	1,614,141	30,579,500	115,310	380,796	129,719,527	7,283,550
Maryland						75,436,667	4,783,326
Virginia							2,287,569

No. 66.—The FISHERIES of the UNITED STATES in 1879—THE SOUTHERN ATLANTIC STATES—Continued.

Summary of the quantities of each of the more important food-fishes and other aquatic species taken in each State, and the total yield of the fisheries of the Southern Atlantic States.

Species.	Totals by species.	Maryland.	Virginia.	North Carolina.	South Carolina.	Georgia.	Eastern Florida.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Totals by States..	297, 539, 167	95. 712, 570	158, 874, 609	32, 249, 488	6, 143, 250	2, 272, 500	2, 286, 750
Alewives	32, 184, 372	9, 203, 959	6, 925, 413	15, 520, 000	400, 000	125, 000	10, 000
Black bass	375, 000	.....	130, 000	175, 000	10, 000	15, 000	45, 000
Black drum	641, 000	75, 000	60, 000	150, 000	300, 000	20, 000	36, 000
Bluefish	2, 386, 417	10, 000	1, 546, 417	600, 000	200, 000	5, 000	25, 000
Catfish	1, 443, 000	420, 000	500, 000	300, 000	25, 000	180, 000	18, 000
Charleston porgies	375, 000	.....	.....	50, 000	325, 000	.....	.....
Clams (quahaugs or Little Necks)	*a*790, 220	40, 000	363, 820	309, 600	48, 000	24, 000	4, 800
Crabs	*b*3, 366, 267	1, 166, 667	2, 139, 200	11, 200	42, 000	7, 200	.....
Cravallé	12, 000	.....	.....	.....	10, 000	.....	2, 000
Croakers	1, 056, 000	20, 000	450, 000	350, 000	210, 000	6, 000	20, 000
Eels	211, 000	15, 000	125, 000	50, 000	11, 000	4, 000	6, 000
Flounders	141, 000	5, 000	40, 000	20, 000	60, 000	10, 000	6, 000
Green turtle	96, 250	.....	.....	6, 000	*c*2, 000	.....	*d*88, 250
Groupers	3, 000	.....	.....	.....	2, 000	1, 000	.....
Grunts and pigfish	543, 000	3, 000	100, 000	400, 000	35, 000	.....	5, 000
Menhaden	92, 194, 800	3, 903, 000	88, 213, 800	50, 000	15, 000	5, 000	8, 000
Mixed fresh-water fish	1, 457, 933	778, 518	243, 140	39, 025	14, 000	125, 500	257, 750
Mixed salt-water fish	3, 350, 139	163, 000	195, 139	2, 061, 500	587, 500	63, 000	280, 000
Moonfish or banded porgy	221, 000	5, 000	180, 000	30, 000	5, 000	.....	1, 000
Mullet	4, 424, 000	30, 000	25, 000	3, 368, 000	232, 000	106, 000	663, 000
Oysters	124, 231, 240	74, 200, 000	47, 861, 240	1, 190, 000	350, 000	490, 000	140, 000
Pompano	36, 500	.....	8, 000	25, 000	3, 500	.....	.....
Perch	2, 345, 000	890, 000	745, 000	430, 000	100, 000	115, 000	65, 000
Red drum	324, 000	10, 000	40, 000	175, 000	35, 000	10, 000	54, 000
Sailor's choice	140, 000	2, 000	10, 000	70, 000	40, 000	3, 000	15, 000
Scup	70, 000	.....	.....	20, 000	50, 000	.....	.....
Sea bass	552, 000	5, 000	20, 000	125, 000	375, 000	2, 000	25, 000
Shad	10, 878, 942	3, 774, 426	3, 171, 953	3, 221, 263	207, 600	252, 000	251, 700
Sheepshead	660, 666	12, 000	503, 666	80, 000	28, 000	12, 000	25, 000
Shrimp	*e*820, 750	.....	.....	63, 000	630, 000	56, 000	71, 750
Spanish mackerel	1, 639, 163	18, 000	1, 609, 663	10, 000	1, 000	.....	500
Spot	1, 420, 000	20, 000	700, 000	520, 000	160, 000	5, 000	15, 000
Spotted sea trout	1, 694, 000	5, 000	369, 000	950, 000	180, 000	90, 000	100, 000
Squeteague	1, 674, 000	60, 000	1, 107, 000	170, 000	290, 000	32, 000	15, 000
Star-fish and butter-fish	316, 000	1, 000	115, 000	200, 000	.....	.....	.....
Striped bass	2, 252, 000	700, 000	625, 000	770, 000	20, 000	120, 000	17, 000
Sturgeon	1, 610, 708	144, 000	411, 558	436, 900	*f*261, 250	*g*354, 000	3, 000
Terrapin	*h*364, 800	30, 000	165, 600	123, 000	23, 400	19, 800	3, 000
Turtle (various salt and fresh-water species)	50, 000	.....	.....	30, 000	*i*20, 000	.....	.....
Whiting and kingfish	1, 188, 000	3, 000	175, 000	150, 000	835, 000	15, 000	10, 000

a 10 pounds of meats to a bushel of clams.
b 3 crabs to the pound.
c 100 in number.
d 1,900 in number.
e Figured at 35 pounds to the bushel.
f Including 38,250 pounds of caviare worth $2,358.
g Including 42,000 pounds of caviare worth $2,940.
h 3½ pounds each.
i 200 in number.

No. 66.—The FISHERIES of the UNITED STATES in 1879—Continued.

IV.—The Pacific States and Territories.

SALMON FISHERIES AND CANNERIES.

Kinds of products.		Quantity.	Value.
			Dollars.
Amount of catch:			
Number of fish	number	2,755,000	----------
Weight	pounds	51,862,000	----------
Salted, amount fresh	do	a1,585,500	22,600
Smoked, amount fresh	do	200,000	5,000
Sold to San Francisco, amount fresh	do	2,000,000	60,000
Sold to canneries, amount fresh	do	43,379,542	909,818
Consumed locally, amount fresh	do	4,696,958	46,000
			1,044,387
Product of the canneries	pounds	31,453,152	3,255,365

a Salted, 1,246,000.

PRODUCTS OF THE SEA BORDERING PACIFIC STATES AND TERRITORIES.

Kinds of products.		Quantity.	Value.
			Dollars.
Shore and halibut	pounds	14,483,000	474,886
Cod	do	4,721,920	196,870
Salmon	do	53,844,000	2,977,554
General (Alaska)	do	105,000,000	525,000
Total, fresh fish (dried and smoked reduced to pounds fresh)	pounds	178,048,920	4,174,310
Crabs, shrimps, &c	do	2,500,000	66,358
Oysters, mussels, abalones, &c	bushels	125,000	703,250
Whale oil	gallons	158,685	80,150
Fish oil (seal, &c.)	do	168,600	23,300
Whalebone	pounds	61,000	122,000
Seal flesh	do	1,000,000	10,000
Seal-skins	number	155,718	1,540,912
Sea-otter skins	do	3,575	178,750
Eggs of sea birds	do	120,000	1,500
Seaweed	pounds	250,000	200
Salt	do	60,400,000	302,000
Total		----------	7,202,730

V.—The Great Lakes.

Quantities and values of fish taken in the Great Lakes.a

Lakes.	Total.		Whitefish.		Trout.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
Total	68,742,000	1,652,900	21,463,900	778,100	6,804,600	221,700
	3,816,625	118,370	2,257,000	74,100	1,464,750	41,950
				440,170	2,659,450	82,650
						73,500

No. 66.—The FISHERIES of the UNITED STATES in 1879—THE GREAT LAKES—Continued.

Quantities and values of fish taken in the Great Lakes—Continued.

Lakes.	Herring.		Sturgeon.		Hard fish.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
Total	15,356,300	117,100	7,012,100	116,300	6,722,600	182,900
Superior	34,000	700	.....	.....	26,875	800
Michigan *a*	3,050,400	46,950	3,839,600	63,825	110,925	2,950
Huron and Saint Clair *b*	897,500	6,300	1,582,500	23,850	2,370,000	52,300
Erie	11,374,400	63,150	1,590,000	28,625	4,214,800	126,850
Ontario	.....	.....	.....	.....	.....	.....

Lakes.	Soft fish.		Rough fish.		Coarse fish.		Mixed fish.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
Total	7,086,700	90,600	43,000	875	2,302,400	89,025	1,950,400	56,300
Superior	8,000	120	.....	.....	.....	.....	26,000	700
Michigan *a*	408,800	3,780	.....	.....	508,600	12,725	533,700	15,350
Huron and Saint Clair *b*	675,000	4,900	.....	.....	.....	.....	.....	.....
Erie	5,994,900	81,800	43,000	875	.....	.....	1,178,200	32,850
Ontario	.....	.....	.....	.....	1,793,800	76,300	212,500	7,400

NOTE.—Under "hard fish" are included wall-eyed pike, black bass, lake pike, muskallonge, and skinned catfish, with such amounts of whitefish and trout as could not be separated from the general sum. Under "soft fish" are placed saugers, white bass, suckers, and lake shad. The "rough fish" of Lake Erie are principally catfish, but at Toledo all kinds of fish undressed are termed "rough." The "rough fish" of Green Bay, Lake Michigan, includes the same kinds as the "coarse fish" of Lake Ontario, namely, all species except whitefish and trout. Under "mixed fish" are placed various amounts of all kinds of fish.

Total quantities and values of fresh and prepared fish, caviare, isinglass, and oil; and the aggregate value of the same.

Lakes.	Total.	Fresh fish.	
	Value.	Quantity.	Value.
	Dollars.	*Pounds.*	*Dollars.*
Total	1,784,050	43,122,270	1,102,950
Superior	105,535	1,494,500	47,780
Michigan *a*	612,410	10,728,250	343,070
Huron and Saint Clair *b*	349,365	10,354,850	267,300
Erie	578,690	17,054,670	312,250
Ontario	138,050	3,490,000	132,550

Lakes.	Salt fish.		Frozen fish.	
	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*
Total	16,793,540	402,670	2,821,650	126,100
Superior	1,549,500	57,755	.....	.....
Michigan *a*	7,730,740	203,425	100,000	6,000
Huron and Saint Clair *b*	800,800	16,000		
Erie	6,712,500			
Ontario				

No. 66.—The FISHERIES of the UNITED STATES in 1879—THE GREAT LAKES—Continued.

Total quantities and values of fresh and prepared fish, &c.—Continued.

Lakes.	Smoked fish.		Caviare.	
	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*
Total	1,721,770	109,970	230,160	34,315
Superior	788,590	52,930	31,330	6,620
Michigan *a*			20,250	2,025
Huron and Saint Clair *b*	933,180	57,040	178,580	25,670
Erie				
Ontario				

Lakes.	Isinglass.		Oil.	
	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars.*	*Gallons.*	*Dollars.*
Total	3,909	5,765	5,680	2,280
Superior	265	265	200	100
Michigan *a*	300	500	600	180
Huron and Saint Clair *b*	3,344	5,000	4,880	2,000
Erie				
Ontario				

a Includes the fisheries of Mackinac.

b Includes the fisheries of Detroit and Saint Clair Rivers, and of the small portion of Michigan bordering on Lake Erie.

NOTE.—The difference in the values of fish in the above tables is due to the fact that in the former the value is estimated on the basis of *fresh fish*, the latter on the basis of their value in the condition in which they are at last put into the market.

No. 67.—THE FISHING INDUSTRY.

The following data of the *Fishing Industry* are from the valuable report for 1886 of Mr. W. A. Wilcox, manager of the American Fish Bureau, Gloucester, Mass., who has a wide reputation as an authority in matters relating to this subject:

From the most reliable, available statictics, we find the fishing industry of North America and Europe gives employment to between 600,000 and 700,000 men and near 150,000 vessels, the total annual products being about 1,500,000 tons, or 3,000,000,000 pounds of fish, equal to 150,000 car-loads, which would load a railroad train 910 miles long.

A few of the leading nations that help make up these figures are as follows: The United States, with 101,684 fishermen and 6,605 vessels, not counting the small boats and unenrolled vessels of under 5 tons; Great Britain was reported to have 120,000 fishermen on January 1, 1887, with the following vessels:

	Ports.	Vessels.
England	57	4,352
Isle of Man	3	305
Scotland	21	4,459
Ireland	17	521
Total	98	9,637

France employs 126,000 persons in the sea fisheries proper and coast fisheries, the annual proceeds being valued at $16,660,000; Norway produces for export $11,900,000, and for home consumption $3,500,000 to $4,500,000 worth of fish; Italy produces $9,520,000; Russia, $16,600,000 annually; and Germany is reported as receiving annually $18,326,000 worth of fish, two-thirds of which are herring.

Statement of the total quantity and value of the fish landed on the English and Welsh coasts during the twelve months ending December 31, 1886.

Kinds of fish.		Quantity.	Value.
Turbot	cwts.	59,542	£182,079
Soles	do.	97,171	425,737
Prime fish not separately distinguished *	do.	370,014	369,089
Total prime fish	do.	526,733	976,905
Salmon	do.	15,066	95,493
Cod	do.	247,646	192,505
Ling	do.	57,698	38,401
Haddock	do.	1,241,825	441,818
Mackerel	do.	264,946	177,525
Herrings	do.	1,955,374	465,250
Pilchards	do.	353,334	42,487
Sprats	do.	148,318	13,850
All other, except shell-fish	do.	1,580,842	1,238,870
Total	do.	6,391,782	3,683,104
Shell-fish:			
Lobsters	number.	451,904	19,007
Crabs	do.	2,863,102	39,359
Oysters	do.	45,554,000	135,042
Other shell-fish	cwts.	285,839	72,481
Total			265,889
Total value of fish landed			

* In Great B[illegible]

THE NEW ENGLAND FISHERIES.

The history of the New England fisheries is one of peculiar interest. In its earliest days almost the sole industry of the colonies, the salary of the minister, the debt due the merchant—in fact most of the obligations being settled for in the staple commodity, fish.

Before the boy had reached his teens he was found on the deck of the fishing vessel serving his apprenticeship, and early learning to face and fear no danger. From such a school and training the early privateer and, later, the Navy have in times of pressing need found the material that always led to success. As the years pass swiftly by the numerous new and larger industries for a time attract more attention, yet the oldest industry in the country loses none of its interest; each day in the year finds something new from the ever, yet never, changing sea. As the record for the year is closed, a review always presents much of interest and variety from those of former ones. During the past eighteen months, since the expiration of the Washington Treaty with Great Britain, the fishing industry has attracted much attention. Much has been written, printed, and spoken, yet, unfortunately, it does not seem to be understood.

Probably few of the consumers, as well as many that from the agitation of the fisheries take an interest in them, could locate or have much of an idea where the bulk of the salt-water fish that supplies the nations are caught. They little think of the fisherman as sailing from home for weeks or months ere his return; as being from 150 to as far as 2,400 miles from home before he enters his little dory, and there, often 100 miles or more from the nearest land, beginning to take his cargo. Yet such is the fact. Often for days and weeks surrounded by a dense fog, frequently failing to find his vessel and drifting and suffering alone in the wide ocean subject to fearful storms and wrecks, "Last seen on Georges," or other distant fishing banks, being the only report, until the sad words must be spoken, "Given up," and the losses of the year have another addition to the long number gone before.

In the early history of the fishing industry of New England we find the business was carried on in small vessels or boats, that from the abundance of fish had no occasion to go far from shore. In those days the near-shore fishing grounds along the New England coast were well supplied with all the leading and desirable varieties of salt-water fish, and were of great value to the fishermen. The same, probably, might be said of the near-shore fishing grounds of the British provinces at that date.

As far back as 1818, the year of the treaty of London, which now comes to the front, very little attention was paid to the mackerel fishery, only 30,969 barrels being packed that year in Massachusetts; and for ten years—1809-1818, inclusive—the total pack was only 180,492 barrels.

With the exception of a few vessels that annually visited the Grand Banks or fished off the Labrador coast, neither the New England nor provincial fishermen had occasion to go far from their own shore, with no steamers or railroads for transshipment, no telegraph to call and receive or send reports and orders. Under such circumstances was the treaty of 1818 ratified.

In 1819 the mackerel fishery first makes much of a showing, the pack of Massachusetts being 100,111 barrels. Fluctuating, yet growing in importance up to 1831, in which year Massachusetts packed out 383,548 barrels, an amount that has never since been reached by this State in any one year.

As is well known, the mackerel is a migratory fish; while in one or a series of years it is found in immense quantities in one part of the North Atlantic Ocean and its [illegible] another year or series of years it will be found [illegible] justly lay

catch was made there. Since the introduction into general use of the purse seine, in 1870, we find nearly all of the mackerel catch has been made on the fishing ground of no nation, but on the high seas, or more than three miles from shore. Of late years, mackerel, in common with other varieties of fish that once were found plenty near shore, are now seldom found in abundance within three miles of land, and oftener wide out, or on the more distant fishing banks.

Scientific research has added much to the knowledge of the fisheries, yet where the mackerel come from in spring, where they go late in the fall and spend the winter, why they are found in great abundance off the New England coast for a series of years, and perhaps the next year in the Gulf of St. Lawrence, remains as much a mystery and matter of theory as one hundred years ago. The honest fact remains that while the near shore fisheries of New England and the British provinces are to a small extent valuable to the fishermen adjacent to them, they are not to others, the amount of fish there caught, compared with the aggregate catch, being insignificant, the bulk of the catch being taken on the distant fishing banks of the high seas, as shown by the accompanying diagram and description of the fishing grounds.

It is desirable that this question be fully understood. That the day may not be far distant when the fisherman with all his hardships, exposures, and dangers, may not be further harassed, and constantly have the danger of heavy fine or total loss of his property, for having crossed an imaginary and difficult-to-locate three-mile line, or availed himself of the common commercial right of all civilized nations—that every fisherman of whatever nation may take his fish wherever found with as much freedom as the fish now have to swim across the boundary line. This is no theory of the day, as we find as far back as the days of Queen Elizabeth, who is reported as having said to the King of Denmark, "The sea is free to all men. My fishermen have the right to fish in the sea wherever their vessels will float." Certainly the insignificant amount caught near the shores of the North American continent is not worthy of the continual differences of two great nations. It is also hoped the day may soon arrive when the fishing industry may not be singled out from that of all others in any privations of commercial rights. Conforming cheerfully to all just laws, the fishermen may reasonably claim equality, justice, and such protection as the importance of their extra hazardous business calls for.

THE FISHING GROUNDS.

The fishing grounds of the Western Atlantic (see accompanying diagram) are the largest and most valuable in the world. They quickly attracted the attention of the early explorers who visited America, and who reported to their countrymen the extraordinary wealth of the western seas. At a period when nearly all Europe professed the Roman Catholic faith and fish was consumed in enormous quantities in the many church fasts, the discovery of such vast fishing grounds, teeming with their millions of undisturbed wealth, created the most profound sensation, and kings, noblemen, and wealthy merchants engaged in and fostered the enterprise of fishing with a zeal that we may now find difficult to realize or appreciate, and which has perhaps never since been equaled except in instances of mining excitement.

It is a well-established historical fact that the colonization of North America was largely due to the interest felt in the possession of the fishing grounds, and for their possession or retention fierce wars were waged between the French and English for upwards of two centuries; and Sabine* holds the opinion that the disputes and contentions which originated in the struggle for obtaining exclusive rights on the fishing banks by the English Colonists led ultimately to the Revolutionary W

The Biscayan [illegible]

countrymen prior to the time of Columbus, but this story is improbable and, as Sabine says, "may be dismissed now as one which rests upon no clear and authentic testimony." The French fishermen were, however, the pioneers in the cod fisheries of the Western Atlantic, and it is fairly certain that as early as 1504 the Normans and Biscayans knew of the Newfoundland fisheries. Within twenty-five years of the discovery of America by Columbus the crews of 50 ships, Basque, Norman, Spanish, and Portuguese were plying their lines on the great banks of Newfoundland, more than three hundred years ago. In 1577 the French had employed not less than 150 vessels in the American fisheries, and we are told that "they prosecuted the business with great vigor and success." From that time to the present the fishing banks of the Western Atlantic have been visited by fleets of varying magnitude, and they have proved an unexampled storehouse of wealth in supplying innumerable millions with food.

These banks, of which we have so hastily and imperfectly sketched the early history, constitute a chain of submerged ocean plateaus elevated considerably above the surrounding sea bottom and extending from Cape Cod to and includig the Flemish Cap off the eastern coast of Newfoundland. While there are cod-fishing grounds of some importance nearer the land, both off the coasts of the United States and the British provinces, these ocean banks generally are at considerable distance from the land and therefore free from any national jurisdiction. They are the natural and favorite resort of the cod and halibut, and, as previously stated, constitute the richest and most unfailing resort for fishermen which is known to exist. Elsewhere allusion is made to the extent and importance of the fishing grounds for mackerel and other migratory species; here we have only spoken of the banks proper which may or may not at times be valuable as a resort for mackerel.

LOCATION OF FISHING BANKS.

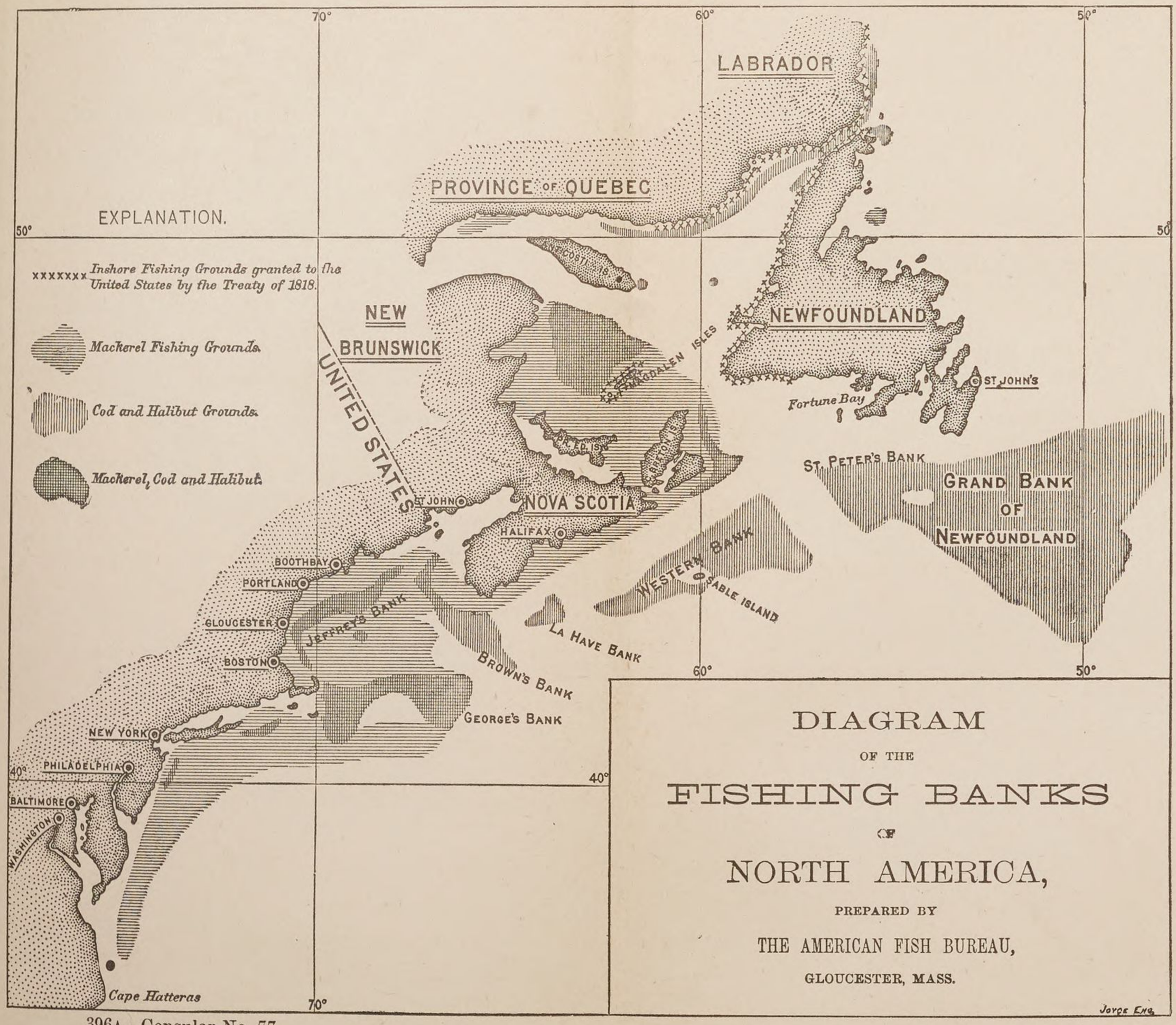
Georges Bank.—This fishing ground is celebrated for producing the finest codfish and halibut found off the North American continent. It is fished on at all times of the year by a large fleet from New England ports; seldom by vessels from other than United States ports. It extends about 70 miles north and south, and 80 miles east and west, in latitude 41° to 42° 30′, longitude 66° 15′ to 69° west. Lowest depths, 2½ fathoms; usual depths fished on, 25 to 80 fathoms. Halibut fares are taken on the east and northeast edge of the bank, in from 150 to 200 fathoms. Distance from Gloucester, ESE., 120 miles; the nearest land being Highland Light, Cape Cod, 95 miles.

Brown's Bank.—ENE. from Georges, in latitude 42° 45′, longitude 66°. From the shoalest water the nearest land is Cape Sable, 45 miles NE.

La Have Bank.—E. by S. from Brown's, in latitude 43°, longitude 64° 15′ distant from Brown's, 80 miles E. by S.; Shelburne, N. S., 60 miles distant, being the nearest land.

Sable Island Bank, or more generally known as *Western Bank*, in latitude 43° to 44° 15′, longitude 59° 15′ to 62° 30′, about 75 miles north and south, 135 miles east and west. Nearest land from the fishing ground, Canso, N. S., 80 miles.

Banquereau.—Next in the chain of fishing banks, in longitude 57° to 60°, latitude 44° 05′ to 45°, the western edge being just north of the eastern edge of Sable Island bank east and west. Nearest land, Cape Canso, N. S., 80



DIAGRAM

OF THE

FISHING BANKS

OF

NORTH AMERICA,

PREPARED BY

THE AMERICAN FISH BUREAU,

GLOUCESTER, MASS.

JOYCE ENG.

396A—Consular No. 77.

Grand Bank of Newfoundland.—This celebrated bank, that for over three centuries has seldom failed of furnishing abundance of codfish, is triangular in shape, the longest direction being E. by S. and W. by N., in longitude 48° to 54°, latitude 43° to 47° 30′, being 270 miles wide, NNE. by SSW., and about the same distance in E. by S. and N. by W. direction. The shoalest water, 3 fathoms, is found on Virgin Rocks, Cape Race, Newfoundland, the nearest land being 90 miles from shoalest water, and Gloucester, Mass., is 885 miles distant.

Flemish Cap.—This ground is, to a small extent, fished on by American vessels; it is located about 300 miles east of the Grand Banks and some 1,200 miles from Gloucester.

Greenland.—Is annually visited by a few vessels from Gloucester on halibut trips; distance from home port 1,600 miles.

Iceland.—The most distant fishing grounds visited by American vessels; 2,400 miles from Gloucester, that port annually sending a small fleet, their catch being confined to halibut, of which a full fare is usually secured. Vessels from France and other European countries fish off this coast, mostly for codfish.

These fishing banks are the principal fishing grounds that supply the United States, and to more or less extent other nations, with salt fish. The outlines given do not always conform exactly with the charts. Of late years the fishermen have gradually extended the grounds fished on into deeper water. This is especially noticeable in the halibut fishery—vessels now fishing in from 200 to 400 fathoms, or 1,200 to 2,400 feet of water, yet locating their catch on a given bank.

According to the United States Fish Commission, the area of the offshore banks, exclusive of the fishing grounds off Greenland and Iceland, is 73,123 geographical square miles, all of which, being on the high seas, are under the control of no nation and free to all.

Capt. J. W. Collins, of the United States Fish Commission, in an article lately published in the Century, gives the area and location of the mackerel fishing ground as follows:

"According to a report on the fishing grounds of North America, prepared by the United States Fish Commission, the total area of the mackerel fishing grounds off the eastern coast of the United States is 56,000 geographical square miles. Here, in our own waters, the most extensive and valuable mackerel fishery of the world is carried on. In addition to this, our fishermen have the right to fish in the waters of the Gulf of St. Lawrence, outside the 3-mile limit; and thus is opened to them an additional area of 15,200 square miles, making a total of more than 70,000 square miles over which they have an unquestioned right to prosecute their operations. Now, if we estimate the area of inshore waters frequented by our fishermen in pursuit of mackerel, we will be able to get an idea of their relative importance, always supposing that the fishery can be prosecuted as well inshore as it can off, which is not the fact, as will be shown hereafter. The north shore of Prince Edward Island and Cape Breton are the localities in the inshore British waters which are now chiefly visited by American vessels in pursuit of mackerel. The total area of the inshore waters in these regions commonly resorted to by American fishermen does not exceed much 775 square miles (if we follow the coast line), or about one per cent. of the area of the mackerel fishing grounds to which they have an unquestioned right. Or, if we include the south shore of Nova Scotia and Cape Breton, the east side of Cape Breton and what is known as the 'West Shore'—from Point Escumenac to Point Miscou—in the Gulf of St. Lawrence, we shall have a total area of 2,064 square miles. But a simple state[illegible] the area of these inshore waters

of Nova Scotia few fish are taken by American vessels, and these only during the migratory period. Thus it will be seen that the available area inside the limit is exceedingly small."

"Then, too, the change in the method of fishing has, in recent years, led to the almost practical abandonment of the mackerel fishery in the Gulf of St. Lawrence Occasionally a considerable fleet enters the Gulf; but, since the results have generally been unsatisfactory, there have been seasons when only a very few vessels went there. It is true, perhaps, that, the mackerel being a remarkably erratic species, its movements cannot be predicted from year to year with any absolute certainty."

"The results obtained in the past ten years, since the universal employment of the purse seine, may serve, however, as a fair basis in judging of the future. It is an historical fact, now well established by the most accurate and careful investigation and inquiry, that the catch of mackerel in the Gulf of St. Lawrence, not to speak of the inshore waters under British control, has been of comparative insignificance during the last decade. And even under the most favorable conditions, when the catch there has been exceptionally large, as in 1885, the total product of the Gulf mackerel fishery did not amount to more than 8 per cent. of the entire catch of the New England fleet. Of this, less than one-third was taken inside of the 3-mile limit."

Fishing losses from January 1 to December 31, 1886.

Hailing port.	Vessels.	Tonnage.	Value.	Insurance.	Lives lost.
Portland, Me	3	245.87	$18,000	$10,800	.....
Gloucester, Mass	17	1,182.75	115,800	93,345	115
Beverly, Mass	2	32.15	2,700	1,800	2
Salem, Mass	1	21.41	2,000	.....	.....
Swampscott, Mass	1	23.29	1,500	.....	.....
Boston, Mass	2	154.56	13,500	7,000	.....
Noank, Conn	1	26.15	2,500	.....	1
Total	27	1,686.18	156,000	112,945	118

Mackerel vessels lost: Gloucester, 3; Portland, 2; Boston, 1. Other vessels lost were engaged in the cod, halibut and herring fisheries. Fifty-one lives lost from Gloucester vessels by being swept overboard or lost in the fog are included in the above. Thirty-eight seine boats and several seines lost by the mackerel fleet. Schooner Highland Light, of Wellfleet, on mackerel voyage, seized and confiscated by the British provincials. Schooner David J. Adams, of Gloucester, on codfish voyage, was the first vessel seized during the season, and yet remains in possession of the provinces; the case yet undecided.

IMPORTANCE OF THE FISHERIES.—Probably no industry, with equal capital, gives employment to and supports so many persons as the fisheries. The last official returns for the United States are as follows: Number of vessels, 6,605; tonnage, 208,297.82; persons employed, 131,426; capital invested, $37,955,349.

The New England States make the following report for the past year: Vessels engaged in all branches of the fisheries, including oyster and whaling, 1,956; tonnage, 115,130; men employed, 17,996.

THE WHALE FISHERY.

[Abstract of the forty-third Annual Review of the Industry.]

New Bedford, January 24, 1887.—The Whalemen's Shipping List will this week publish the 43d annual review of the whale fishery of the United States for the past year. From advance sheets it is learned that the total number of vessels of all classes en-

barrels; whale oil, 18,253 barrels; whalebone, 184,511 pounds. Stock in the United States January 1, 1887: Sperm oil, 18,210 barrels; whale oil, 9,270 barrels; whalebone, 322,900 pounds. The average price of whale oil during the year was 33 cents per gallon; sperm oil, 74½ cents per gallon; whalebone, $2.73 per pound.

PACIFIC FISHERIES.

[From San Francisco Chronicle.]

San Francisco, January 1, 1887.—Forty-four vessels were sent from this port to the Arctic last season to hunt for whales. Of these all but one, the tender Clara Light, returned. The Clara Light was crushed in the ice, and her catch, which was very small, was entirely lost. On their return to this port, and while setting out for the South Seas, the Atlantic and Mary and Helen were lost, the former being wrecked near the Cliff House, and the latter being burned at the oil refinery. The catch of these 43 vessels was 20,307 barrels of oil, 332,931 pounds of bone, and 5,273 pounds of ivory. About one-half of these vessels were owned in San Francisco.

The following statement of catches in the Pacific fisheries for twelve years is given for the purpose of comparison:

Years.	Oil.	Bone.	Ivory.	Years.	Oil.	Bone.	Ivory.
	Barrels.	*Pounds.*	*Pounds.*		*Barrels.*	*Pounds.*	*Pounds.*
1874	10,000	86,000	7,600	1882	21,100	316,600	17,800
1875	16,300	157,000	25,400	1883	12,300	160,200	23,100
1876	2,800	8,800	7,000	1884	20,373	295,700	5,421
1877	13,900	139,600	74,000	1885	24,844	451,068	6,564
1878	9,600	73,300	30,000	1886	20,307	332,931	5,273
1879	17,400	127,500	32,900				
1880	23,200	339,000	15,300	Totals	214,524	2,842,499	265,758
1881	21,800	354,500	15,400				

The returns of oil, bone, and ivory made here for the past year are a little less than for 1885, but they are slightly in excess of the figures for 1884, so that the production would appear to be holding its own at least. Prices have been holding up fairly well, and on the whole there is no need for those engaged in the industry to feel discouraged.

THE CODFISHING FLEET OF THE PACIFIC COAST.

With one vessel less than in 1885, the codfishing fleet caught 155,000 fish less than the total for the previous year. The fleet of 1886 was composed of 11 vessels, one of which made three round trips, and another two.

The catch for the past season was taken from the following sources:

	No. of fish.
Choumagin Islands	566,000
Okhotsh Sea	426,000
Behring Sea	239,000
Total	1,231,000

Since the beginning of the codfishing industry in 1865 the annual catches have been as follows:

Year.	Vessels.	No. of fish.	Year.	Vessels.	No. of fish.
1865	7	469,400	1877	10	750,000
1866	18	724,000	1878	12	1,190,000
1867	19	943,400	1879	13	1,400,000
1868	10	608,000	1880		
1869	10				
1870					

The catch of 1883 remains the highest in the codfishing history of the Pacific coast. During the past year 17,672 barrels and 298,007 boxes of salmon were received from Oregon, against 9,579 barrels and 212,516 boxes in 1885.

The mackerel catch.

States.	Southern.		New England Shore.		Nova Scotia Shore and Gulf of St. Lawrence.		Total 1886.		Total 1885.	
	Cured.	Fresh.	Cured.	Fresh.	Cured.	Fresh.	Cured.	Fresh.	Cured.	Fresh.
	Bbls.	*Bbls.*	*Bbls.*	*Bbls.*	*Bbls.*	*Bbls.*	*Bbls.*	*Bbls.*	*Bbls.*	*Bbls.*
Massachusetts:	2,642	9,928	8,126	10,032	54,633	-------	65,401	19,960	198,036	55,183
Vessels	------	------	1,299	5,991	------	------	1,299	5,991	------	------
Weirs and traps										
Maine:	95	2,590	6,604	2,528	10,727	780	17,426	5,898	95,861	24,055
Vessels	------	------	80	950	------	------	80	950	------	------
Weirs and traps										
New Hampshire:	------	------	125	1,500	------	------	125	1,500	619	300
Vessels	------	------	650	1,100	------	------	650	1,100	------	------
Rhode Island:										
Weirs and traps	------	------	275	------	------	------	275	------	1,123	------
Connecticut:										
Vessels	------	------	50	------	100	------	150	------	1,257	1,000
New York:										
Vessels	------	------	200	------	148	------	348	68	831	250
Pennsylvania:										
Vessels	------	68	------	------	------	------	85,754	35,467	297,727	80,788
Total	2,737	12,586	17,409	22,101	65,608	780				

Vessels engaged.

	Vessels.	Tonnage.	Crews.
Massachusetts:			
Vessels	220	16,350.69	3,313
Weirs and traps	------	------	243
Maine:			
Vessels	99	5,944.36	1,377
Weirs and traps	------	------	------
New Hampshire:			
Vessels	4	186.91	60
Rhode Island:			
Weirs and traps	------	------	------
Connecticut:			
Vessels	2	88.13	19
New York:			
Vessels	1	77.00	17
Pennsylvania:			
Vessels	1	79.15	17
Total	327	22,726.24	5,046

The New England fisheries, 1886.—*Catch of cod, mackerel, herring, other food-fish, and menhaden.*

1886.	Catch on Georges and Brown's Banks and New England Shore.			Grand and Western Banks salt cod.	Fresh halibut.	Herring.	Salt mackerel.	Fresh mackerel
	Salt cod.	Fresh cod.	Other ground fish.					
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Bbls.*	*Bbls.*	*Bbls.*
Maine:								
Cod, vessels	3, 795, 830	.....	6, 534, 836	10, 842, 896	339, 000	6, 000	.....	.....
Mackerel, vessels	.....	.....	.....	.....	.....	.....	17, 426	5, 898
Weirs and traps	.....	.....	.....	.....	.....	45, 340	80	950
Small boats	.....	568, 500	278, 800	.....	.....	.....	.....	.....
New Hampshire:								
Cod, vessels	.....	1, 593, 750	531, 250	.....	127, 000	.....	.....	.....
Mackerel, vessels	.....	.....	.....	.....	.....	.....	125	1, 500
Weirs and traps	.....	.....	.....	.....	.....	750	.....	.....
Massachusetts:								
Cod, vessels	31, 067, 534	11, 107, 173	22, 350, 127	36, 600, 180	12, 309, 744	11, 541	.....	.....
Mackerel, vessels	.....	.....	.....	.....	.....	.....	65, 401	19, 960
Weirs and traps	.....	.....	.....	.....	.....	10, 064	1, 299	5, 991
Small boats	.....	1, 154, 000	.....	.....	.....	800	.....	.....
Rhode Island:								
Cod, vessels	.....	1, 125, 000	200, 000	.....	.....	.....	.....	.....
Weirs and traps	.....	.....	.....	.....	.....	.....	.....	.....
Small boats	.....	576, 000	.....	.....	.....	300	650	1, 100
Steamers	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut:								
Cod, vessels	.....	3, 586, 510	.....	.....	618, 950	.....	.....	.....
Weirs and traps	.....	.....	.....	.....	.....	.....	.....	.....
Small boats	.....	15, 500	.....	.....	.....	.....	.....	.....
Mackerel, vessels	.....	.....	.....	.....	.....	.....	.....	.....
Steamers	.....	.....	.....	.....	.....	.....	275	.....
Total	34, 863, 364	19, 726, 433	29,895, 013*a*	47, 443, 076	13, 394, 694	74, 795	85, 256	35, 399

1886.	Vessels.	Tonnage.	Crews.
Maine:			
Cod, vessels	264	10, 597. 84	2, 216
Mackerel, vessels	99	5, 944. 36	1, 377
Weirs and traps	.....	.....	Men, 310
Small boats	.....	.....	369
New Hampshire:			
Cod, vessels	8	241. 31	80
Mackerel, vessels	4	186. 91	60
Weirs and traps	.....	.....	15
Massachusetts:			
Cod, vessels	479	28, 583. 18	6, 366
Mackerel, vessels	220	16, 350. 69	3, 313
Weirs and traps	.....	.....	Men, 243
Small boats	.....	.....	581
Rhode Island:			
Cod, vessels	18	369. 00	78
Weirs and traps	.....	.....	Men, 315
Small boats	.....	.....	90
Steamers	13	843. 92	249
Connecticut:			
Cod, vessels	72	1, 937. 44	326
Weirs and traps	.....	.....	Men, 30
Small boats	.....	.....	6
Mackerel, vessels	2	88. 13	19
Steamers	21	1, 575. 44	378
Total	1, 200	66, 718. 22	16, 420

a Hake, haddock, cusk, and pollock.

Other fish: 7,135 barrels squid; 915,770 pounds food fish
of fish from traps, used for
The

Official returns by the inspector-general of MACKEREL INSPECTED in MASSACHUSETTS, showing the total number of barrels of each quality of pickled mackerel inspected in Massachusetts each year from 1809 to 1886, and the total value of each year's inspection, each year from 1830 to 1886.

Year.	Barrels mackerel inspected.					Total value.
	1.	2.	3.	4.	Total.	
1809	2,274	3,078	3,472	.....	8,825	.....
1810	2,540	4,770	5,242	.....	12,552	.....
1811	1,368	6,023	10,009	.....	17,401	.....
1812	1,000	2,154	2,726	.....	5,881	.....
1813	900	1,231	1,625	.....	3,756	.....
1814	89	546	703	.....	1,339	.....
1815	3,225	5,456	7,377	.....	16,059	.....
1816	8,694	9,264	13,010	.....	30,969	.....
1817	10,406	5,267	21,688	.....	37,362	.....
1818	14,410	11,162	20,775	.....	46,348	.....
1819	19,614	36,521	43,975	.....	100,111	.....
1820	12,455	34,811	68,374	.....	115,641	.....
1821	7,400	32,103	71,505	.....	111,009	.....
1822	20,032	66,681	73,578	.....	160,294	.....
1823	19,804	62,047	63,154	.....	145,006	.....
1824	45,246	75,221	71,183	.....	191,650	.....
1825	29,640	109,840	114,904	.....	254,384	.....
1826	43,499	80,584	34,657	.....	158,740	.....
1827	81,357	69,335	39,612	.....	190,304	.....
1828	63,235	110,666	63,422	.....	237,324	.....
1829	54,184	77,098	94,695	.....	225,977	.....
1830	47,868	104,569	156,025	.....	308,463	$1,119,470
1831	70,198	171,186	142,164	.....	383,548	1,589,936
1832	28,679	97,219	96,553	.....	222,452	797,795
1833	54,559	98,927	69,445	.....	222,932	976,935
1834	80,433	93,553	78,892	.....	252,879	1,165,842
1835	45,605	57,271	91,924	.....	194,800	1,030,560
1836	53,665	60,558	60,187	.....	174,410	1,268,388
1837	24,573	61,027	52,557	.....	138,157	803,653
1838	37,968	28,588	44,184	.....	110,740	925,002
1839	22,217	22,037	30,013	.....	74,268	719,204
1840	19,351	11,049	20,091	.....	50,491	473,345
1841	23,747	10,649	21,141	.....	55,537	518,300
1842	29,363	22,496	23,684	.....	75,543	493,979
1843	32,759	13,088	18,604	.....	64,451	549,419
1844	28,843	22,515	35,023	.....	86,381	634,502
1845	28,083	88,623	85,596	.....	202,302	1,883,669
1846	44,430	70,005	65,076	.....	179,511	1,094,585
1847	104,150	76,006	71,760	.....	251,917	2,259,958
1848	113,093	79,979	107,058	.....	300,130	1,858,500
1849	61,404	81,962	65,581	.....	208,950	1,560,126
1850	88,401	44,909	87,604	21,658	242,572	1,777,517
1851	90,765	102,467	135,597	414	329,244	2,249,511
1852	84,030	67,071	44,088	2,210	198,120	1,491,923
1853	49,015	24,584	39,897	19,843	133,340	1,207,975
1854	30,595	46,242	55,133	3,378	135,349	1,313,535
1855	29,302	91,122	90,193	1,338	211,956	2,129,084
1856	89,333	76,819	47,981	178	214,312	2,064,581
1857	84,519	45,218	38,257	711	168,705	2,162,738
1858	75,347	21,929	32,332	1,992	131,602	1,729,546
1859	61,330	12,060	22,207	4,118	99,715	1,255,077
1860	58,828	122,837	50,578	3,441	235,685	2,251,065
1861	70,877	100,286	22,486	633	194,283	1,116,850
1862	81,902	78,388	100,011	562	260,864	1,597,416
1863	67,985	136,075	102,061	280	306,942	2,878,773
1864	103,383	137,746	33,212	14	274,357	5,935,527
1865	153,723	63,562	39,266	244	256,796	4,729,841
1866	150,332	36,319	44,784	269	231,696	4,324,790
1867	122,808	46,038	41,048	418	210,314	2,961,933
1868	93,091	42,262	44,077	625	180,056	2,522,151
1869	72,924	92,019	65,717	3,549	234,210	3,248,315
1870	66,046	189,422	63,019	33	318,521	3,744,197
1871	105,187	85,867	68,322	38	259,416	2,233,055
	71,866	54,370	55,603	115	181,956	1,948,416
			37,795	376	185,748	2,799,083
					258,379	2,657,615

THE FISHERIES OF FOREIGN COUNTRIES.

STATEMENT showing the KINDS, QUANTITIES, and VALUES of the YIELD of the FISHERIES in each Province of the DOMINION of CANADA during the Year ending June 30, 1885.

[Compiled from the Annual Report of the Department of Fisheries of the Dominion of Canada for the year 1885.]

ND FISH UCTS.	Unit of quantity.	NOVA SCOTIA.		NEW BRUNSWICK.		QUEBEC.		PRINCE EDWARD ISLAND.		BRITISH COLUMBIA.		ONTARIO.		TOTAL.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
.....	Cwts	806, 426	*Dollars.* 3, 427, 311	83, 298	*Dollars.* 354, 017	164, 529	*Dollars.* 658, 116	22, 891	*Dollars.* 97, 288	.....	*Dollars.*	.....	*Dollars.*	1, 077, 144	*Dollars.* 4, 536, 732
.....	Barrels ..	207, 160	828, 640	109, 717	438, 868	53, 542	244, 115	46, 937	187, 748	.....	.....	.....	.....	477, 062	1, 997, 901
.....	Boxes ...	116, 080	29, 020	1, 313, 535	328, 384	4, 179	1, 045	60	15	*b*56, 000	7, 000	.....	.....	1, 489, 854	365, 464
.....	Number .	.....	.....	15, 800, 150	94, 801	.....	.....	.....	.....	.....	.....	.....	.....	15, 800, 150	94, 801
fresh	Pounds ..	328, 040	13, 122	.....	.....	.....	.....	.....	.....	.....	.....	*a*59, 706	298, 530	364, 640	14, 952
.....	....do	6, 805, 340	1, 020, 801	5, 236, 252	785, 438	872, 257	130, 838	4, 389, 189	526, 703	.....	.....	.....	.....	17, 303, 038	2, 463, 780
ve, &c.....	Tons	1, 887	56, 621	3, 111	93, 330	.....	.....	.....	.....	36, 600	1, 830	.....	.....	4, 998	149, 951
.....	Barrels ..	3, 428	61, 704	191	3, 438	739	7, 390	.....	.....	.....	.....	.....	.....	7, 844	103, 744
.....	Number .	.....	.....	.....	.....	.....	.....	.....	.....	3, 486	31, 212	.....	.....	204, 700	40, 940
.....	Pounds ..	445, 658	86, 647	1, 356, 498	271, 300	580, 754	52, 016	8, 455	1, 268	204, 700	40, 940	.....	.....	2, 391, 365	411, 231
ans	....do	30, 570	6, 114	16, 618	3, 324	2, 914	437	.....	.....	.....	.....	.....	.....	5, 258, 918	552, 460
.....	....do	27, 465	5, 493	6, 900	1, 380	.....	.....	.....	.....	5, 208, 816	542, 585	.....	.....	404, 365	43, 873
ans	....do	10, 656	1, 598	135, 616	20, 342	.....	.....	.....	.....	370, 000	37, 000	.....	.....	539, 734	61, 287
.....	Barrels ..	108, 136	1, 081, 365	10, 845	108, 450	2, 347	14, 082	393, 462	39, 347	.....	.....	.....	.....	145, 752	1, 448, 137
.....	Cwts	170, 026	596, 999	17, 587	61, 555	694	2, 776	24, 424	244, 240	.....	.....	.....	.....	189, 140	666, 328
.....	....do	(*d*)	(*d*)	41, 124	143, 934	.....	.....	833	4, 998	(*c*)	(*c*)	.....	.....	55, 644	194, 754
.....	....do	49, 098	171, 843	16, 192	56, 672	.....	.....	14, 520	50, 820	.....	.....	.....	.....	65, 290	228, 515
.....	Pounds ..	128, 075	7, 685	70, 980	4, 259	593, 820	42, 263	71, 120	4, 267	83, 000	5, 810	4, 598, 454	367, 876	5, 545, 449	432, 160
.....	Barrels ..	.....	.....	.....	.....	139	1, 112	.....	.....	.....	.....	4, 166	41, 660	4, 305	42, 772
.....	Pounds ..	.....	.....	.....	.....	50, 060	4, 005	.....	.....	.....	.....	2, 867, 500	229, 400	2, 917, 560	233, 405
.....	Barrels ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5, 355	53, 550	5, 355	53, 550
.....	Pounds ..	418, 150	25, 089	5, 497, 858	329, 871	8, 850	620	57, 500	3, 450	.....	.....	.....	.....	5, 982, 358	359, 030

a Lake herring.
b Pounds.
c In British Columbia 341,160 haddock and whiting, valued at $12,058, are included with miscellaneous products.
d In Nova Scotia the hake are included with the haddock.

ANTITIES, and VALUES of the YIELD of the FISHERIES in each Province of the DOMINION of CANADA, Year ending June 30, 1885—Continued.

H	Unit of quantity.	NOVA SCOTIA.		NEW BRUNSWICK.		QUEBEC.		PRINCE EDWARD ISLAND.		BRITISH COLUMBIA.		ONTARIO.		TOTAL.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Dollars.		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*
.....	Barrels ..	.....	.....	55, 860	335, 160	6, 857	20, 571	.....	.....	.....	.....	.....	.....	6, 857	20, 571
.....	Hhds	.....	.....	48, 577	48, 577	.....	.....	(a) 20	(a) 12	.....	.....	.....	.....	55, 860	335, 160
.....	Pounds ..	58, 090	58, 090	.....	.....	143, 200	13, 645	.....	.....	.....	.....	.....	.....	106, 667	106, 667
.....	Number .	.....	.....	9, 616	96, 159	532, 400	26, 620	.....	.....	354, 500	17, 725	1, 459, 035	72, 952	143, 220	13, 657
.....	Barrels ..	4, 919	39, 358	26, 240	1, 574	30, 800	1, 848	6, 770	406	159, 000	9, 540	.....	.....	14, 535	135, 517
.....	Pounds ..	.....	.....	47, 360	2, 842	9, 195	9, 195	.....	.....	.....	150, 019	.....	.....	2, 372, 175	118, 871
.....	....do	1, 491, 987	86, 519	.....	.....	142, 740	71, 370	19, 220	12, 493	62, 730	26, 024	.....	.....	1, 735, 917	104, 155
.....	Number	.....	.....	98, 142	58, 885	.....	.....	.....	.....	.....	.....	.....	278, 724	9, 195	159, 214
.....	Gallons ..	495, 320	322, 735	.....	.....	.....	417, 395	.....	120, 374	.....	208, 353	.....	.....	818, 152	491, 507
ry, and		.....	354, 169	.....	362, 872	.....	.....	.....	.....	.....	.....	.....	.....	.....	1, 741, 887
.....	.....	.....	.....	.....	.....	.....	1, 719, 459	.....	1, 293, 429	.....	1, 078, 038	.....	1, 342, 692	.....	17, 722, 973
.....	.....	.....	8, 283, 923	.....	4, 005, 432	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

(a) In Prince Edward Island 16,888 pounds of cod and hake sounds, valued at $10,977.20, are included with miscellaneous products.

No. 69.—Statement showing the TOTAL VALUE of the PRODUCTS of the FISHERIES in each Province of the DOMINION of CANADA for each Year from 1880 to 1885, inclusive.

[From the reports of the minister of marine and fisheries of the Dominion of Canada.]

PROVINCES.	1880.	1881.	1882.	1883.	1884.	1885.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Nova Scotia	6, 291, 061	6, 214, 782	7, 131, 418	7, 689, 375	8, 763, 779	8, 283, 923
New Brunswick	2, 744, 447	2, 930, 905	3, 192, 339	3, 185, 675	3, 730, 454	4, 005, 431
Prince Edward Island	1, 675, 089	1, 955, 290	1, 855, 687	1, 272, 468	1, 085, 619	1, 293, 430
Quebec	2, 031, 556	2, 751, 963	1, 973, 516	2, 138, 997	1, 694, 561	1, 719, 460
Ontario	444, 491	509, 903	825, 457	1, 027, 033	1, 133, 724	1, 342, 692
British Columbia	713, 336	1, 454, 321	1, 842, 675	1, 644, 645	1, 358, 267	1, 078, 038
Total	14, 499, 980	15, 817, 164	16, 824, 092	16, 958, 193	17, 766, 404	17, 722, 974

; showing, by COUNTRIES, the KINDS, QUANTITIES, and VALUES of FISH and FISH OILS, the Produce
ian Fisheries, EXPORTED from the DOMINION of CANADA during the Year ending June 30, 1886.

[From the account relative to the Trade, &c., of the Dominion of Canada.]

ISH AND FISH OILS.	Unit of quantity.	United States.		United Kingdom.		British West Indies.		British Guiana.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
			Dollars.		*Dollars.*		*Dollars.*		*Dollars.*
FISH.									
addock, and pollock:	Pounds	276,469	1,786	21,068	82,645	233,204	669,345	16,621	44,637
	Cwts	153,271	406,392						
	do	12,715	33,306	8	14	29,035	88,185	11,986	34,454
	Barrels	25,064	71,062	5	41	40	148	4	8
	do	1,304	40,393						
					625		158	1,200	92
		324,424	13,276	9,120	7,833	1,912	70,004	3,815	13,015
	Pounds	153,991	8,901	80,460	11	18,081			
	do	60,867	372,709	3					
	Barrels	233,140	13,266					2,355	7,972
	Pounds							17,563	275
		3,446,036	29,724	388	1,439	23,656	72,528		
	do	28,299	78,172	14,800	282	206,833	4,157		
	Barrels	5,133,261	67,225					1	2
	Pounds						4,204		
		1,756,564	44,605	10	40	1,190	15		
	do	1,531	6,149	550	55	180			
	Barrels	6,150	145						
	Pounds					4	14		
				1,679	3,929				
		276	792	1,216	283				
	Barrels							1,200	125
	Pounds					23,984	2,827		
		32,077	81,761	7,698,023	925,170				
	Barrels	4,644,515	499,779						
	Pounds								
			5						
	Barrels	1			160	85	16		
	do			1,800	30				
		2,157,700	219,358	300		1,008	131		
	Pounds	4,853	979	3,621,740	365,660	608	6,616	20	176
	do	148,875	15,351	98	753				
	do	3,422	32,225						
	Barrels								

No. 70.—EXPORTS of FISH and FISH OILS from the DOMINION of CANADA, by countries, 1886—Continued.

KINDS OF FISH AND FISH OILS.	Unit of quantity.	United States.		United Kingdom.		British West Indies.		British Guiana.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
r: FISH—continued.									
			Dollars.		*Dollars.*		*Dollars.*		*Dollars.*
	Barrels	1,576	426,349	3	5	205	649		
FISH OILS.			9,935		10				
	Gallons	12,813	3,933	84,322	41,017	746	317		
	do			6,426	2,664				
	do	46,420	13,332	2,475	1,114			143	50
les			2,490,910		1,433,780		919,314		100,806

EXPORTS of FISH and FISH OILS from the DOMINION of CANADA, by COUNTRIES, 1886—Continued.

FISH OILS.	Unit of quantity.	British Possessions in South Atlantic.		British Possessions in Australasia.		Newfoundland.		France.		Saint Pierre.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
			Dollars.		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars*
						300	900			200	575
						4	32			4	40
g, haddock, ed.	Cwts					250	15			16	52
	Barrels									575	28
	Pounds					130	151				
	Barrels					8, 160	236				
	do	300	20					51	255	229	369
	Pounds			60	6	498	959	1, 695, 230	231, 687	2, 400	350
	Barrels									256	512
	Pounds										
	Barrels										
	Pounds			315, 600	32, 675						
	Barrels			826	6, 297						
	Pounds						42	17	65		
	Barrels										
	Barrels					160	70				1, 926
IL.							2, 405		232, 007		
	Gallons		20		38, 978						

No. 70.—EXPORTS of FISH and FISH OILS from the DOMINION of CANADA, by COUNTRIES 1886—Continued.

FISH AND FISH OILS.	Unit of quantity.	French West Indies.		Germany.		Portugal.		Madeira.		Portuguese Possessions in Africa.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
FISH.											
ding ling, haddock,											
1	Cwts	25,136	*Dollars.* 73,343	500	*Dollars.* 1,400	50,706	*Dollars.* 195,250	613	*Dollars.* 2,450		*Dollars.*
unds	Barrels									384	1,275
ed	do					5	26				
	do	1,284	4,715	15	52	15	86				
	do	632	1,353	75	225	100	230	10	35		
d	Pounds	23,800	599	1,400	28	3,000	45				
es	do			11,424	1,190	336	28			1,050	15
			80,010		2,895		195,665		2,485		1,290

H AND FISH OILS.	Unit of quantity.	Italy.		Spanish West Indies.		Danish West Indies.		Brazil.		Argentine Republic.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
ISH.											
g ling, haddock,											
	Cwts	24,407	*Dollars.* 101,010	160,276	*Dollars.* 456,682	3,094	*Dollars.* 10,528	71,664	*Dollars.* 338,695	162	*Dollars.* 648
ads	Barrels			30,319	84,813	511	1,550				
	do			6	36						
	do			11,856	46,930	504	1,802	2	10		
	do										
	Pounds			12,501	37,166	1,089	3,272				
kled	Barrels			75,660	1,348	7,104	262	5	10		
	Pounds	960	120	104	462	163	583	300	10		
	Barrels			2,100	126						
						23	245	14,400	1,590		
			101,130		627,563		18,242		340,315		648

'0.—EXPORTS of FISH and FISH OILS from the DOMINION of CANADA, by COUNTRIES, 1886—Continued.

H AND FISH OILS.	Unit of quantity.	Chili.		China.		Hawaiian Islands.		TOTAL EXPORTS.		EXPORTED TO THE UNITED STATES.
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Per cent. of total value.
FISH.			*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*	*Per cent.*
ing, haddock, and pollock:	Pounds							276,469	1,786	100.00
	Cwts							761,222	2,384,500	17.04
	do							12,715	33,306	100.00
	Barrels							97,307	281,353	25.26
	do							1,368	40,684	99.28
ds	Pounds							333,794	13,916	95.40
	do							237,563	16,984	52.41
	Barrels							96,446	509,374	73.17
	Pounds							233,140	13,266	100.00
	do							3,446,036	29,724	100.00
	Barrels							69,256	202,605	38.58
	Pounds							5,493,806	74,530	90.20
	do							1,756,564	44,605	100 00
en	Barrels							3,050	11,695	52.00
	Pounds							6,940	221	65.61
	do							2,686	6,063	13.66
	Barrels							1,216	283	0.00
	Pounds							32,077	81,761	100.00
	Barrels							14,094,572	1,662,992	30.05
	Pounds							256	512	0.00
	Barrels							1	5	100.00
	Pounds							2,159,500	219,518	99.93
	Barrels							5,238	1,025	95.51
	do							4,087,223	413,817	3.71
her	Pounds							5,327	48,416	66.56
	do					271	1,769		426,396	99.99
	do	59	335						10,659	93.21
	Barrels								1,801	
:	Barrels									

No. 70.—EXPORTS of FISH and FISH OILS from the DOMINION of CANADA, by COUNTRIES, 1886—Continued.

FISH AND FISH OILS.	Unit of quantity.	Chili.		China.		Hawaiian Islands.		TOTAL EXPORTS.		EXPORTED TO THE UNITED STATES.
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Per cent. of total value.
FISH OILS.										
.....	Gallons	.....	*Dollars.*	.....	*Dollars.*	.....	*Dollars.*		*Dollars.*	*Per cent.*
.....	....do	.....	.....	.....	.....	.....	.....	98, 041	45, 337	8. 67
.....	....do	.....	.....	2, 500	1, 250	.....	.....	6, 426	2, 664	0. 00
s	.....	.....	335	.....	1, 250	.....	1, 769	51, 538	15, 746	84. 67
								.....	6, 593, 743	36. 26

No. 71.—STATEMENT showing the KINDS, QUANTITIES, and VALUES of the FISHERY PRODUCTS EXPORTED from NEWFOUNDLAND during the Year ending December 31, 1883.

[From the Bulletin of the United States Fish Commission, 1885.]

ARTICLES.	Quantities.	Price per unit.	Values.
		Dollars.	*Dollars.*
Dry codfish ..... quintals..	1,163,934	3 00 to 5 20	4,725,960
Core fish ..... do....	1,372	2 00	2,744
Pickled codfish ..... do....	947	2 00	1,894
Pickled Labrador herring ..... barrels..	19,001	3 20	60,803
Pickled shore herring ..... do....	44,383	2 50	110,958
Pickled salmon ..... tierces..	4,046	22 00	89,012
Pickled mackerel ..... barrels..	4	3 00	12
Pickled trout ..... do....	532¾	8 00	4,262
Ling ..... quintals..	44	2 00	88
Haddock ..... do....	470	2 60	1,222
Turbot ..... barrels..	10	10 00	100
Caplin ..... do....	115	50	58
Pickled halibut ..... do....	4	6 00	24
Lobsters ..... pounds..	505,968	10	50,597
Cod-roes ..... barrels..	179	3 00	537
Tongues and sounds ..... do....	54	3 00	162
Frozen herring ..... do....	5,240	2 00	10,480
Fish guano ..... tons..	193½	.....	6,000
Codfish oil ..... tuns..	2,936¾	124 00	364,157
Codfish oil, refined ..... do....	404	192 00	77,568
Seal oil ..... do....	5,340¾	124 00	662,253
Herring oil ..... do....	14	96 00	1,344
Whale oil ..... do....	38½	108 00	4,158
Blubber ..... do....	54	14 00	756
Seal-skins ..... do....	322,603	1 00	322,603
Seals ..... cwts..	300	2 00	600
Whalebone	25	15 00	375
Total	.....	.....	6,498,727

No. 72.—STATEMENT showing, by COUNTRIES, the QUANTITIES of FISHERY PRODUCTS EXPORTED from NEWFOUNDLAND in 1883.

[From the Bulletin of the United States Fish Commission, 1885.]

ARTICLES.	EXPORTED TO—						TOTAL EXPORTED.
	United Kingdom.	Canada.	The United States.	The West Indies.	Spain, Portugal, and Gibraltar.	All other countries.	
Dry codfish ..... quintals..	45,107	36,055	45,693	98,913	573,181	*a*364,985	1,163,934
Core fish ..... do....	.....	.....	1,300	.....	.....	*b*72	1,372
Pickled codfish ..... do....	.....	947	.....	.....	.....	.....	947
Pickled herring, Labrador, ... barrels..	5,979	4,858	8,164	.....	.....	.....	19,001
Pickled herring, shore, barrels	.....	31,106	8,233	4,971	.....	673	44,383
Pickled salmon ..... tierces..	623	781⅓	1,964⅓	502	7⅓	*c*167⅓	4,046
Pickled mackerel ..... barrels..	.....	.....	3	1	.....	.....	4
Pickled trout ..... do....	15	23	430	64¾	.....	.....	532¾
Ling ..... quintals..	.....	.....	.....	44	.....	.....	44
Haddock ..... do....	.....	.....	.....	470	.....	.....	470
Turbot ..... barrels..	.....	.....	.....	3	.....	*b*7	10
Dried caplin ..... do....	94	.....	.....	21	.....	.....	115
Pickled halibut ..... do....	.....	4	.....	.....	.....	.....	4
Lobsters in tins ..... pounds..	323,568	105,648	76,752	.....	.....	.....	505,968
Cod-roes ..... barrels..	135	.....	.....	.....	.....	*b*44	179
Tongues and sounds ... do....	13	.....	35	.....	.....	*b*6	54
Herring ..... do....	.....	550	4,690	.....	.....	.....	5,240
							193¼
						*b*11	2,936¾

No. 73.—STATEMENT showing the KINDS, QUANTITIES, and VALUES of the FISHERY PRODUCTS EXPORTED from NEWFOUNDLAND to the United States during the Year ending December 31, 1883.

[From the Bulletin of the United States Fish Commission, 1885.]

ARTICLES.	Quantities.	Price per unit.	Values.
		Dollars.	*Dollars.*
Dry codfish ..... quintals..	45,693	5 20	237,604
Core fish ..... do ...	1,300	2 00	2,600
Pickled Labrador herring ..... barrels..	8,164	3 20	26,125
Pickled shore herring ..... do ...	8,233	2 50	20,583
Pickled salmon ..... tierces..	1,964⅓	22 00	43,216
Pickled mackerel ..... barrels..	3	3 00	9
Pickled trout ..... do	430	8 00	3,440
Preserved lobsters in tins ..... pounds..	76,752	10	7,675
Cod tongues and sounds ..... barrels..	35	3 00	105
Frozen herring ..... do	4,690	2 00	9,380
Codfish oil ..... tuns	143¼	124 00	17,763
Codfish oil, refined ..... do	124	192 00	23,808
Seal oil ..... do	6½	124 00	806
Total	.....	.....	393,114

No. 74.—STATEMENT showing the KINDS and QUANTITIES of the FISH PRODUCTS EXPORTED from LABRADOR during the Year ending December 31, 1883.

[From the Report of the Receiving-General of Customs for Newfoundland.]

FISHERY PRODUCTS.	Quantities.
Dried codfish ..... quintals..	368,089
Pickled salmon ..... tierces..	899
Preserved salmon ..... tins..	23,000
Pickled trout ..... barrels..	547
Pickled herring ..... do ...	54,162
Seal skins ..... number..	490
Seal oil ..... tuns..	26
Cod oil ..... do ...	21
Blubber ..... do ...	3

No. 75.—STATEMENT showing the KINDS and VALUES of the PRODUCTS of the FRENCH FISHERIES from 1874 to 1884, inclusive.

[From the British Statistical Abstract for Foreign Countries.]

YEAR.	COD FISHERIES.		HOME FISHERIES.		TOTAL.	OYSTERS INCLUDED IN HOME FISHERIES.	
	Newfoundland.	Iceland.	In boats.*a*	On foot.*a*		Quantities.	Value.
	Francs.	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Number.*	*Francs.*
1874	8,191,519	6,762,361	55,410,096	3,020,282	73,384,258	.....	.....
1875	7,734,646	7,651,736	56,992,064	4,788,096	77,166,542	97,227,000	2,379,709
1876	9,065,970	7,084,901	67,379,596	5,460,124	88,990,591	160,267,396	2,592,707
1877	8,059,898	8,252,796	64,680,434	6,234,063	87,227,191	104,354,081	1,502,951
1878	7,141,822	7,966,166	65,873,911	5,989,828	86,971,727	169,397,046	1,854,564
1879	6,992,436	7,554,354	65,998,937	7,534,122	88,079,849	157,570,080	
1880	6,433,948	6,856,850	66,235,993				
1881	7,882,255						

No. 76.—STATEMENT showing, by COUNTRIES, the QUANTITIES and VALUES of FISH IMPORTED into and EXPORTED from FRANCE during each of the Years 1883, 1884, and 1885.

[From the Tableau Général du Commerce de la France.]

KINDS OF FISH, AND COUNTRIES FROM WHICH IMPORTED.	IMPORTS FOR CONSUMPTION.					
	1885.		1884.		1883.	
	Kilos.	*Francs.*	*Kilos.*	*Francs.*	*Kilos.*	*Francs.*
FRESH-WATER FISH.						
Fresh:						
Germany	697,889	----------	526,116	----------	563,421	----------
Netherlands	985,512	----------	1,086,618	----------	1,748,999	----------
Other	1,322,984	----------	1,080,285	----------	1,229,331	----------
Total	3,006,385	2,056,066	2,693,019	2,558,368	3,541,751	3,541,751
Prepared:						
England	36,854	----------	11,220	----------	11,792	----------
Other	23,249	----------	6,607	----------	3,045	----------
Total	60,103	162,278	17,827	48,133	14,837	39,564
SALT-WATER FISH.						
Cod, dried or salted:						
Saint Pierre	48,077,015	----------	44,923,581	----------	42,265,444	----------
Other	36,295	----------	25,141	----------	26,655	----------
Total	48,113,310	31,273,652	44,948,722	26,969,233	42,292,099	25,375,259
Stock fish:						
Norway	143,740	----------	201,164	----------	141,800	----------
Netherlands	131,526	----------	91,942	----------	1,919	----------
Italy	126,779	----------	126,448	----------	162,056	----------
Other	23,380	----------	32,026	----------	55,664	----------
Total	425,425	340,340	421,580	337,263	361,439	325,295
Herring, fresh:						
England	1,208,109	----------	1,062,342	----------	631,258	----------
Other	8,862	----------	10,412	----------	20,057	----------
Total	1,216,971	425,940	1,072,754	375,464	651,315	358,228
Herring, dried, salted, or smoked	126,784	38,035	141,869	49,654	943,457	396,252
Other fresh:						
England	5,229,979	----------	4,895,888	----------	3,812,120	----------
Belgium	2,280,864	----------	2,015,221	----------	1,178,411	----------
Spain	840,095	----------	379,949	----------	901,413	----------
Other	1,167,920	----------	1,154,717	----------	778,274	----------
Total	9,518,858	9,518,858	8,445,775	7,178,999	6,670,218	6,336,707
Other dried, salted, or smoked:						
Spain	2,881,602	----------	2,796,480	----------	3,228,995	----------
Algiers	546,259	----------	509,297	----------	1,200,568	----------
Saint Pierre	322,554	----------	541,724	----------	605,480	----------
Other	283,616	----------	193,425	----------	346,249	----------
Total	4,034,131	4,034,131	4,040,926	3,636,833	5,381,292	8,879,132
Salted or in oil, sardines:						
Algiers	448,935	----------	222,182	----------	285,002	----------
Spain	327,059	----------	154,523	----------	105,139	----------
	266,272	----------	96,709	----------	94,886	----------
					485,027	970,054

No. 76.—FISH IMPORTED into and EXPORTED from FRANCE during each of the Years 1883, 1884, and 1885—Continued.

IMPORTS FOR CONSUMPTON—Continued.

KINDS OF FISH, AND COUNTRIES FROM WHICH IMPORTED.	1885.		1884.		1883.	
LOBSTERS—continued.	*Kilos.*	*Francs.*	*Kilos.*	*Francs.*	*Kilos.*	*Francs.*
United States	959,015	.....	1,185,988	.....	.....	.....
Other	446,434	.....	231,449	.....	676,138	.....
Total	2,196,114	5,380,479	2,498,342	6,245,855	1,580,538	4,741,614
OYSTERS.						
Total fresh	.....	150,850	.....	905,860	.....	2,090,119
Total pickled	8,926	20,083	21,075	47,418	21,566	53,915
MUSCLES AND OTHER SHELL-FISH IN THE SHELL.						
Belgium	5,851,169	.....	4,855,263	.....	5,151,755	.....
Other	59,873	.....	36,711	.....	13,134	.....
Total	5,911,042	1,182,208	4,891,974	978,395	5,164,889	1,032,978
ROES OF COD AND MACKEREL.	*Net.*		*Net.*		*Net.*	
Norway	5,400,659	.....	3,318,539	.....	3,414,172	.....
Netherlands	150,050	.....	300,529	.....	94,713	.....
United States	299,877	.....	260,825	.....	120,500	.....
Saint Pierre	300,824	.....	369,810	.....	265,961	.....
Other	474,970	.....	56,358	.....	241,342	.....
Total	6,626,380	2,179,233	4,306,061	1,937,727	4,136,688	2,895,682
Total value of imports	.....	60,281,155	.....	54,272,246	.....	61,357,703

EXPORTS.

KINDS OF FISH, AND COUNTRIES TO WHICH EXPORTED.	1885.		1884.		1883.	
FRESH-WATER FISH.						
Fresh:	*Kilos.*	*Francs.*	*Kilos.*	*Francs.*	*Kilos.*	*Francs.*
Germany	33,902	.....	51,838	.....	41,389	.....
Spain	9,147	.....	.....	.....	.....	.....
Other	12,361	.....	10,175	.....	6,933	.....
Total	55,410	52,639	62,013	58,912	48,322	48,322
SALT-WATER FISH.						
Cod, dried or salted:						
Spain	8,231,405	.....	6,668,582	.....	4,863,768	.....
Italy	3,195,545	.....	2,416,585	.....	1,881,574	.....
Algiers	1,059,579	.....	991,128	.....	905,251	.....
Other	1,364,971	.....	1,396,791	.....	1,461,956	.....
Total	13,851,500	9,003,475	11,473,086	6,883,852	9,112,549	6,196,533
Stock fish	13,653	10,922	15,778	12,622	14,956	13,460
Herring, fresh:						
England	2,312,187	.....	790,540	.....	Not stated	.....
Other	516,999	.....	166,320	.....	.....	.....
Total	2,829,186	1,131,674	956,860	382,744	96,139	52,876
Herring, dried, salted, or smoked:						
England	1,265,363	.....	829,124	.....	35,515	.....
Other	1,139,451	.....	1,343,705			

No. 76.—FISH IMPORTED into and EXPORTED from FRANCE during each of the Years 1883, 1884, and 1885—Continued.

EXPORTS—Continued.

KINDS OF FISH, AND COUNTRIES TO WHICH EXPORTED.	1885.		1884.		1883.	
	Kilos.	*Francs.*	*Kilos.*	*Francs.*	*Kilos.*	*Francs.*
SALT-WATER FISH—continued.						
Other dried, salted, or smoked:						
Réunion	232,497	.....	196,963	.....	89,627	.....
Belgium	64,438	.....	.....	.....	147,859	.....
Other	357,332	.....	239,100	.....	538,766	.....
Total	654,267	752,407	436,063	479,669	776,252	1,319,628
Salted or in oil, sardines:						
England	3,406,668	.....	3,963,375	.....	6,134,383	.....
United States, Atlantic	660,625	.....	912,723	.....	1,900,689	.....
Germany	512,346	.....	523,849	.....	579,044	.....
Belgium	318,436	.....	438,977	.....	397,074	.....
Argentine Republic	197,205	.....	573,365	.....	622,677	.....
Other	2,006,814	.....	3,075,802	.....	3,942,127	.....
Total	7,102,094	14,559,292	9,488,091	19,459,587	13,575,994	27,830,787
Salted or in oil, other:						
England	121,883	.....	391,848	.....	177,415	.....
United States, Atlantic	69,734	.....	.....	.....	.....	.....
Other	404,670	.....	540,231	.....	514,830	.....
Total	596,287	1,371,460	932,079	2,190,386	692,245	1,626,775
LOBSTERS.						
Belgium	107,099	.....	80,269	.....	65,569	.....
Other	16,392	.....	9,908	.....	12,676	.....
Total	123,491	302,553	90,177	225,443	78,245	234,735
OYSTERS.						
Fresh:						
England	.....	.....	3,028,402	.....	2,550,290	.....
Other	.....	.....	321,255	.....	210,182	.....
Total	.....	.....	3,349,657	.....	2,760,472	.....
Pickled	.....	.....	.....	.....	1,673	1,882,860
MUSCLES AND OTHER SHELL-FISH IN THE SHELL.						4,183
England	89,200	.....	134,098	.....	91,692	.....
Other	73,805	.....	71,409	.....	67,452	.....
Total	163,005	57,051	205,507	71,927	159,144	71,615
ROES OF COD AND MACKEREL.						
Spain	*Net.* 67,139	.....	Not stated	.....	Not stated	.....
Other	360	.....	....do	.....	....do	.....
Total	67,499	23,625	4,503	2,626	72,539	50,777
Total value of exports	.....	31,758,762	.....	33,678,619	.....	40,475,726

NOTE.—One kilogram equal to 2.204 pounds; one franc equal to 19.3 cents.

No. 77.—STATEMENT showing, by COUNTRIES, the QUANTITIES and VALUES of FISH IMPORTED into and EXPORTED from GERMANY during the Years ending March 31, 1883, 1884, and 1885.

[From the "Statistik des Deutschen Reichs."]

IMPORTS.

KINDS OF FISH, AND COUNTRIES FROM WHICH IMPORTED.	1885.		1884.		1883.	
Fresh:	100 *kilog.*	*Marks.*	100 *kilog.*	*Marks.*	100 *kilog.*	*Marks.*
Hamburg and Altona	44,992	.....	40,495	.....	31,808	.....
Denmark	80,241	.....	39,658	.....	46,719	.....
Netherlands	20,827	.....	20,692	.....	21,746	.....
Sweden	17,842	.....	9,713	.....	10,489	.....
All other	28,075	.....	28,581	.....	28,277	.....
Total	191,977	9,599,000	139,139	16,697,000	139,039	16,685,000
Stockfish, dried:						
Netherlands	7,422	.....	6,259	.....	5,465	.....
All other	4,367	.....	3,822	.....	3,789	.....
Total	11,789	613,000	10,081	605,000	9,254	668,000
Fish, salted or dried, except stockfish and herring:						
Netherlands	38,714	.....	28,842	.....	22,539	.....
Hamburg and Altona	5,159	.....	4,828	.....	3,778	.....
Denmark	4,299	.....	3,709	.....	5,035	.....
All other	3,463	.....	3,033	.....	2,203	.....
Total	51,635	4,647,000	40,412	5,658,000	33,555	4,698,000
All other prepared fish:						
Hamburg and Altona	1,203	.....	.....	.....	.....	.....
Italy	338	.....	.....	.....	.....	.....
France	905	.....	.....	.....	.....	.....
All other	593	.....	.....	.....	.....	.....
Total	3,039	575,000	.....	.....	.....	.....
Herring, salted, in barrels:	*Barrels.*		*Barrels.*		*Barrels.*	
Hamburg and Altona	95,802	.....	102,463	.....	95,124	.....
Great Britain	570,400	.....	501,396	.....	404,315	.....
Netherlands	193,077	.....	160,875	.....	146,601	.....
Norway	148,461	.....	178,375	.....	192,575	.....
All other	13,908	.....	16,937	.....	28,736	.....
Total	1,021,648	29,628,000	960,046	29,761,000	867,351	32,092,000
Herring, salted, not in barrels:	100 *kilog.*					
Bremen	294	.....	.....	.....	.....	.....
Hamburg and Altona	1,331	.....	.....	.....	.....	.....
Great Britain	437	.....	.....	.....	.....	.....
Netherlands	758	.....	.....	.....	.....	.....
All other	221	.....	.....	.....	.....	.....
Total	3,041	304,000	.....	.....	.....	.....
Oysters:			100 *kilog.*		100 *kilog.*	
Hamburg and Altona	2,523	.....	1,467	.....	1,326	.....
Netherlands	2,834	.....	2,180	.....	1,409	.....
All other	1,543	.....	1,108	.....	1,195	.....
Total	6,900	1,042,000	4,755	713,000	3,930	589,000
Lobsters and other shell-fish:						
Hamburg and Altona	1,034	.....	2,012	.....	1,752	.....
All other	389	.....	642	.....	740	.....
Total						

No. 77.—FISH IMPORTED into and EXPORTED from GERMANY during the Years ending March 31, 1883, 1884, and 1885—Continued.

KINDS OF FISH, AND COUNTRIES TO WHICH EXPORTED.	EXPORTS. 1885.		1884.		1883.	
	100 *kilog.*	*Marks.*	100 *kilog.*	*Marks.*	100 *kilog.*	*Marks.*
Fresh:						
Hamburg and Altona	13,930	----------	11,166	----------	12,217	----------
Russia	29,078	----------	26,437	----------	28,807	----------
Austria	2,164	----------	1,901	----------	1,718	----------
France	2,310	----------	9,228	----------	7,847	----------
All other	4,421	----------	5,196	----------	5,522	----------
Total	51,912	3,634,000	53,928	10,786,000	56,111	11,222,000
Stockfish, dried:						
Russia	23	----------	76	----------	137	----------
All other	73	----------	53	----------	70	----------
Total	96	5,000	129	8,000	207	14,000
Fish, salted or dried except stockfish and herring:						
Hamburg and Altona	3,597	----------	2,270	----------	2,206	----------
Austria	1,398	----------	1,032	----------	1,012	----------
Netherlands	279	----------	313	----------	251	----------
All other	747	----------	743	----------	536	----------
Total	6,021	723,000	4,358	610,000	4,005	561,000
All other prepared fish:						
Hamburg and Altona	352	----------	----------	----------	----------	----------
Austria	181	----------	----------	----------	----------	----------
Bremen	59	----------	----------	----------	----------	----------
All other	89	----------	----------	----------	----------	----------
Total	681	136,000	----------	----------	----------	----------
Herring, salted, in barrels:	*Barrels.*		*Barrels.*		*Barrels.*	
Russia	39	----------	121	----------	92	----------
Austria	551	----------	482	----------	478	----------
All other	821	----------	603	----------	344	----------
Total	1,411	41,000	1,206	37,000	914	34,000
Herring, salted, not in barrels:						
Austria	318	----------	----------	----------	----------	----------
Russia	37	----------	----------	----------	----------	----------
Switzerland	37	----------	----------	----------	----------	----------
All other	70	----------	----------	----------	----------	----------
Total	462	46,000	----------	----------	----------	----------
Oysters:	100 *kilog.*		100 *kilog.*		100 *kilog.*	
Sweden	11	----------	24	----------	75	----------
Denmark	94	----------	124	----------	31	----------
All other	43	----------	69	----------	55	----------
Total	148	22,000	217	23,000	161	24,000
Lobsters and other shell-fish:						
Bremen	851	----------	1,169	----------	1,366	----------
Hamburg and Altona	704	----------	832	----------	797	----------
All other	52	----------	218	----------	185	----------
Total	1,607	161,000	2,219	403,000	2,348	446,000
Total value of exports	----------	4,768,000	----------	11,867,000	----------	12,301,000

Union, the imports

No. 78.—STATEMENT showing the QUANTITIES and VALUES of HERRING IMPORTED into GERMANY during each Year from 1875 to 1884, inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEARS.	Herrings.		YEAR.	Herrings.	
	Tonnen.	*Marks.*		*Tonnen.*	*Marks.*
1875	654, 000	23, 500, 000	1880	737, 137	25, 800, 000
1876	704, 227	28, 200, 000	1881	854, 557	29, 055, 000
1877	666, 726	26, 700, 000	1882	875, 000	29, 317, 000
1878	722, 089	27, 400, 000	1883	867, 351	32, 092, 000
1879	641, 144	24, 400, 000	1884	960, 046	29, 761, 000

NOTE.—1 mark = 23.8 cents; 1 tonne = 2,204.621 pounds.

No. 79.—STATEMENT showing the KINDS, QUANTITIES, and VALUES of the PRODUCTS of the DUTCH FISHERIES for each Year from 1874 to 1884, inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEARS.	COD.		HERRING.	
	Quantity.	Value.	Quantity.	Value.
	Tons.	*Gulden.*	*Thousands.*	*Gulden.*
1874	26, 090	(a)	106, 446	(a)
1875	24, 682	(a)	90, 414	(a)
1876	24, 338	(a)	116, 560	(a)
1877	27, 512	(a)	139, 062	(a)
1878	22, 236	(a)	112, 792	(a)
1879	21, 623	(a)	163, 298	(a)
1880	21, 888	(a)	227, 135	(a)
1881	22, 858	(a)	197, 573	3, 983, 000
1882	22, 890	(a)	228, 836	4, 018, 000
1883	23, 396	(a)	209, 637	4, 970, 000
1884	20, 885	(a)	283, 990	4, 611, 000

a Not stated.

NOTE.—One gulden equals 40.2 cents.

No. 80.—STATEMENT showing the KINDS, QUANTITIES, and VALUES of the PRODUCTS of the NORWEGIAN FISHERIES for each Year from 1874 to 1884, inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEARS.	COD.		HERRING.		MACKEREL.		LOBSTER.		OTHER.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Number.	*Kroner.*	*Hecto.*	*Kroner.*	*Number.*	*Kroner.*	*Number.*	*Kroner.*	*Number.*	*Kroner.*
1874	47, 687, 000	14, 656, 000	1, 215, 000	5, 892, 000	6, 880, 000	796, 000	.....	296, 000	1, 680, 000	23, 320, 000
1875	57, 788, 000	15, 405, 000	1, 269, 000	5, 658, 000	5, 250, 000	719, 000	.....	337, 000	1, 677, 000	23, 796, 000
1876	40, 101, 000	10, 864, 000	1, 022, 000	7, 970, 000	4, 192, 000	621, 000	1, 141, 000	355, 000	2, 466, 000	22, 276, 000
1877	66, 805, 000	19, 411, 000	1, 112, 000	6, 790, 000	4, 546, 000	703, 000	987, 000	291, 000	2, 246, 000	29, 441, 000
1878	50, 833, 000	12, 933, 000	850, 000	4, 786, 000	5, 739, 000	671, 000	1, 107, 000	315, 000	2, 349, 000	21, 054, 000
1879	63, 494, 000	13, 682, 000	661, 000	4, 920, 000	6, 080, 000	681, 000	1, 118, 000	[illegible]	[illegible]	[illegible]
1880	68, 273, 000	12, 540, 000	994, 000	7, 100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

No. 81.—STATEMENT showing the KINDS, QUANTITIES, and VALUES of FISH EXPORTED from NORWAY during each Year from 1874 to 1884, inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEARS.	Fresh.	Cod, dried or split.		Herrings.	
	Kroner.	*Kilograms.*	*Kroner.*	*Hectoliters.*	*Kroner.*
1874	687,200	----------	16,872,000	----------	17,631,200
1875	791,600	57,692,000	18,499,200	1,037,824	17,176,800
1876	727,300	52,722,000	20,897,300	1,040,645	19,193,600
1877	677,400	67,030,000	21,640,100	795,298	13,503,500
1878	799,700	56,986,000	19,460,100	785,321	9,047,900
1879	859,200	65,340,000	18,142,600	730,945	12,282,100
1880	915,100	72,215,000	17,578,700	536,333	9,504,200
1881	988,200	60,795,000	22,146,800	1,090,623	16,280,300
1882	855,500	55,028,000	24,380,100	719,095	12,150,900
1883	1,068,600	42,360,000	21,529,000	663,982	11,567,000
1884	1,398,600	51,541,000	18,809,000	740,807	10,555,700

YEARS.	Other salted fish.		Anchovies.		Lobsters.	
	Hectoliters.	*Kroner.*	*Hectoliters.*	*Kroner.*	*Number.*	*Kroner.*
1874	----------	672,000	----------	237,200	749,000	284,800
1875	94,811	935,200	2,443	163,600	881,000	331,200
1876	106,056	1,062,500	5,983	427,000	1,270,000	482,700
1877	109,679	1,000,000	4,565	265,700	1,070,000	374,400
1878	71,507	597,100	7,181	350,300	1,081,000	432,500
1879	99,904	809,300	7,420	423,800	1,019,000	407,800
1880	118,348	805,900	11,755	704,100	991,000	396,300
1881	167,275	1,574,200	15,574	734,500	1,002,000	400,800
1882	113,755	812,800	10,859	523,100	1,324,000	529,800
1883	80,158	567,000	9,141	306,000	1,089,000	490,000
1884	92,962	608,700	9,313	251,400	940,000	441,900

NOTE.—One kroner = 26.8 cents; 1 kilogram = 2.204 pounds; 1 hectoliter = 26.417 gallons.

No. 82.—STATEMENT showing the QUANTITIES and VALUES of FISH IMPORTED into and EXPORTED from SWEDEN during each Year from 1873 to 1883, inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEAR.	IMPORTED.		EXPORTED.
	Herring.		Fish, fresh and salted.
	Cubic meters.	*Kroner.*	*Kroner.*
1873	29,680	5,670,000	237,000
1874	30,450	5,817,000	263,000
1875	33,652	7,715,000	275,000
1876	34,748	8,283,000	210,000
1837	27,911	8,000,000	409,000
1878	18,798	4,980,000	932,000
1879	20,305	4,843,000	424,000
1880	26,185	7,820,000	624,000
1881	34,256	5,545,000	1,094,000
1882	[illegible]	4,965,000	3,952,000
1883	[illegible]	[illegible]	8,001,000

No. 83.—STATEMENT showing the QUANTITIES and VALUES of FISH IMPORTED into ITALY during each Year from 1874 to 1884, inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEARS.	Fish, of all sorts.	
	Kilograms.	*Lire.*
1874	43, 289, 000	21, 968, 000
1875	38, 108, 000	20, 827, 000
1876	37, 185, 000	20, 612, 000
1877	37, 184, 000	20, 302, 000
1878	33, 423, 000	18, 311, 000
1879	39, 690, 000	21, 326, 000
1880	43, 204, 000	23, 464, 000
1881	44, 516, 000	26, 214, 000
1882	39, 109, 000	28, 268, 000
1883	39, 327, 000	27, 793, 000
1884	37, 415, 000	26, 921, 000

NOTE.—One kilogram = 2.204 pounds; 1 lira = 19.3 cents.

No. 84.—STATEMENT showing the QUANTITIES and VALUES of FISH IMPORTED into and EXPORTED from PORTUGAL during each Year from 1874 to 1884, inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEARS.	Imports of cod fish.		EXPORTS.			
			Sardines.		All other fish.	
	Kilog.	*Milreis.*	*Kilog.*	*Milreis.*	*Kilog.*	*Milreis.*
1874	16, 706, 000	1, 227, 000	4, 490, 900	154, 800	3, 630, 000	142, 000
1875	16, 702, 800	1, 374, 000	4, 698, 600	173, 800	3, 543, 000	169, 000
1876	15, 398, 600	1, 355, 000	4, 139, 700	143, 000	4, 469, 000	144, 000
1877	16, 758, 000	1, 409, 000	(a)	(a)	7, 204, 000	297, 000
1878	16, 623, 000	1, 306, 000	2, 297, 300	83, 400	3, 947, 000	161, 000
1879	17, 636, 800	1, 272, 000	2, 861, 000	123, 900	1, 028, 000	84, 000
1880	19, 607, 600	1, 397, 000	3, 848, 300	202, 400	4, 325, 000	262, 000
1881	20, 735, 000	1, 395, 000	2, 784, 000	124, 000	5, 902, 000	311, 000
1882	19, 896, 000	1, 456, 000	3, 143, 000	129, 000	4, 846, 000	456, 000
1883	17, 380, 000	1, 361, 000	6, 024, 000	235, 000	4, 162, 000	421, 000
1884	20, 132, 000	1, 576, 000	8, 588, 000	285, 000	4, 908, 000	435, 000

a None reported.

NOTE.—1=kilogram=2. 204 pounds; 1 milreis = $1.08.

No. 85.—STATEMENT showing the QUANTITIES and VALUES of FISH IMPORTED into and EXPORTED from RUSSIA in EUROPE during each Year from 1874 to 1884, inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEARS.	Imports of salted herrings.		Exports of caviare.	
	Barrels.	*Silver rubles.*	*Poods.*	*Silver rubles.*
1874	430, 430	5, 095, 600	106, 989	1, 105, 365
1875	432, 622	4, 832, 255	96, 903	1, 052, 994
1876	364, 694	4, 037, 127	92, 299	984, 515
1877	241, 878	2, 955, 638	57, 569	1, 001, 767
1878	427, 275	5, 362, 449	124, 877	1, 672, 745
1879	336, 504	4, 347, 087	201, 746	1, 876, 343
1880	(a)	6, 302, 000	[illegible]	
1881				

No. 86.—STATEMENT showing the QUANTITIES and VALUES of COD-FISH IMPORTED into SPAIN during each Year from 1874 to 1884 inclusive.

[From the "British Statistical Abstract for Foreign Countries."]

YEARS.	Codfish.		YEARS.	Codfish.	
	Kilogram.	*Pesetas.*		*Kilogram.*	*Pesetas.*
1874	39,350,000	19,676,000	1880	44,335,000	17,734,000
1875	34,911,000	17,455,000	1881	43,101,000	18,964,000
1876	31,665,000	15,832,000	1882	42,756,000	20,523,000
1877	32,939,000	15,811,000	1883	42,392,000	19,841,000
1878	35,324,000	16,955,000	1884	48,460,000	30,981,000
1879	38,601,000	16,984,000			

NOTE.—1 kilogram=2.204 pounds; 1 peseta=19.3 cents.

No. 87.—STATEMENT showing, by Countries, the QUANTITIES and VALUES of FISH IMPORTED into and EXPORTED from the UNITED KINGDOM during the Years 1883, 1884, and 1885.

[From the "Accounts relative to Trade and Navigation of the United Kingdom."]

IMPORTS.

KINDS OF FISH.	Countries.	1885.		1884.		1883.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fresh (not of British taking).	Holland ..... cwts ..	230,390	£285,453	225,307	£279,516	211,524	£271,059
	United States..... cwts ..	208,057	150,341	153,841	114,839	129,281	97,206
	Norway ..... cwts ..	166,170	148,609	60,762	65,377	37,033	68,009
	All other ..... cwts ..	133,750	129,701	80,529	95,038	49,988	96,171
	Total ..... cwts ..	738,367	714,104	520,439	554,770	427,826	532,445
	Foreign exports ... cwts ..	2,055	3,569	630	1,378	1,136	2,183
	Net imports .. cwts ..	736,312	710,535	519,809	553,392	426,690	530,262
Cured or salted....	Norway ..... cwts ..	116,744	109,789	137,186	136,867	168,924	181,438
	France ..... cwts ..	74,911	208,220	80,074	241,215	99,201	344,473
	United States..... cwts ..	146,902	359,075	178,109	433,113	174,694	468,102
	British North America, ... cwts ..	283,428	368,453	258,354	464,268	292,856	548,336
	Other ..... cwts ..	160,218	234,973	162,260	218,567	132,253	227,172
	Total ..... cwts ..	782,203	1,280,510	815,983	1,494,030	867,928	1,769,521
	Foreign exports... cwts ..	196,801	386,482	219,512	451,334	226,285	511,737
	Net imports... cwts ..	585,402	894,028	596,471	1,042,696	641,643	1,257,784
	Total value of net imports of fish	.....	1,604,563	.....	1,596,088	.....	1,788,046

DOMESTIC EXPORTS.

Fish, fresh or cured:							
Salmon	Total ..... cwts..	7,364	41,136	6,837	43,176	8,455	46,770
Herrings	Germany ..... bbls ..	928,409	1,152,150	975,188	1,216,496	722,488	1,106,631
	Russia ..... bbls ..	146,484	184,216	141,128	175,816	122,515	177,718
	Other ..... bbls ..	164,923	185,525	216,254	256,907	114,835	142,291
	Total ..... bbls ...	1,239,816	1,521,891	1,332,570	1,649,219	959,838	1,426,640
						9,730	42,159

No. 88.—STATEMENT showing the QUANTITY and VALUE of FISH IMPORTED into and EXPORTED from the UNITED KINGDOM for each Year from 1871 to 1885.

[From the "Statistical Abstract for the United Kingdom, 1885."]

YEARS.	FISH, IMPORTED.		EXPORTS.				
			FOREIGN.		DOMESTIC.		
			Fish, cured or salted.		Herring.		Other.
	Cwts.	£	*Cwts.*	£	*Barrels.*	£	£
1871	605, 330	711, 295	35, 349	111, 738	659, 954	888, 446	279, 962
1872	671, 192	859, 042	43, 956	172, 202	631, 750	891, 634	292, 167
1873	718, 174	1, 003, 236	53, 149	206, 132	723, 666	1, 026, 978	268, 918
1874	661, 406	981, 950	52, 075	173, 957	852, 630	1, 216, 782	224, 435
1875	840, 090	1, 266, 577	66, 048	191, 988	684, 755	956, 620	235, 861
1876	966, 119	1, 459, 974	62, 231	178, 335	426, 588	732, 737	220, 067
1877	1, 071, 802	1, 640, 259	78, 470	226, 056	649, 748	1, 056, 069	289, 534
1878	995, 933	1, 541, 830	88, 974	243, 148	664, 852	929, 114	351, 786
1879	1, 160, 140	1, 652, 957	141, 414	309, 264	637, 072	1, 062, 718	354, 437
1880	1, 343, 434	1, 666, 710	154, 193	306, 235	1, 072, 397	1, 422, 361	356, 900
1881	1, 530, 219	2, 332, 605	223, 792	491, 713	805, 170	1, 228, 037	398, 048
1882	1, 239, 217	2, 079, 181	225, 370	483, 988	918, 910	1, 374, 592	442, 110
1883	1, 295, 754	2, 301, 966	226, 285	511, 737	959, 838	1, 426, 640	455, 458
1884	1, 336, 422	2, 048, 800	219, 512	451, 334	1, 332, 570	1, 649, 219	466, 077
1885	1, 520, 570	1, 994, 614	196, 801	386, 482	1, 239, 816	1, 521, 891	494, 074

NOTE.—One pound sterling equals $4.8665.

No. 89.—The TARIFFS of the UNITED STATES, the DOMINION OF CANADA, and various Countries of EUROPE now in force, so far as they relate to importations of FISH.

UNITED STATES.

Dutiable.

Mackerel, one cent per pound.

Herrings, pickled or salted, one-half of one cent per pound.

Salmon, pickled, one cent per pound; other fish, pickled, in barrels, one cent per pound.

Foreign-caught fish, imported otherwise than in barrels or half barrels, whether fresh, smoked, dried, salted, or pickled, not specially enumerated or provided for in this act, fifty cents per hundred pounds.

Anchovies and sardines, packed in oil or otherwise, in tin boxes measuring not more than five inches long, four inches wide, and three and one-half inches deep, ten cents per whole box; in half boxes, measuring not more than five inches long, four inches wide, and one and five-eighths deep, five cents each; in quarter boxes measuring not more than four inches and three-quarters long, three and one-half inches wide, and one and a quarter deep, two and one-half cents each; when imported in any other form, forty per centum ad valorem.

Fish preserved in oil, except anch

No. 89.—Tariffs of different Countries on Importations of Fish—Continued.

United States—Continued.

Free of duty.

Fish, fresh, for daily consumption.
Fish skins.
Fish for bait.
Fishery products taken by American vessels and fishermen. (These products are not included in the statistics of imports of fish.)
Shrimps or other shell-fish. (This has been construed by decision of the Treasury Department to include all shell-fish, whether fresh or preserved.)

DOMINION OF CANADA.

Fish.	Tariff rates of duty.
Mackerel	1 cent per pound.
Herrings, pickled or salted	½ cent per pound.
Salmon, pickled	1 cent per pound.
All other fish, pickled in barrels	Do.
Foreign-caught fish imported otherwise than in barrels or half barrels, whether fresh, dried, salted, or pickled, not specially enumerated or provided for in this act	50 cents per 100 pounds.
Smoked and boneless fish	1 cent per pound.
Anchovies and sardines:	
Packed in oil, otherwise in tin boxes measuring not more than 5 inches long, 4 inches wide, and 3½ inches deep	5 cents per box.
In half boxes, measuring not more than 5 inches long, 4 inches wide, and 1⅝ deep	2½ cents per box.
Quarter boxes, measuring not more than 4¾ inches long, 3½ inches wide, and 1¼ deep	2 cents per box.
When imported in any other form	30 per cent.
Fish, preserved in oil, except anchovies and sardines	Do.
Salmon and all other fish prepared or preserved, including oysters, not specially enumerated or provided for	25 per cent.
Oysters:	
Shelled, in bulk	10 cents per gallon.
In cans, not over 1 pint	3 cents per can.
In cans over 1 pint and not over one quart, including cans	5 cents per can.
In cans exceeding 1 quart in capacity, an additional specific duty of 5 cents for each quart or fraction of a quart of capacity, including cans	5 cents per quart.
In the shell	25 per cent.
Fish, bait	Free.
The following articles, when the the natural products or the manufactures of the colony of Newfoundland, viz: Fish, fresh, dried, salted, or smoked, fish oil, and all products of fish	Free.

No. 89.—Tariffs of different countries on Importations of Fish—Continued.

COUNTRIES IN EUROPE.

DENMARK.

Fish.	Tariff rates of duty.		Equivalent in United States money.	
	Unit.	Duty.	Unit.	Duty.
		Kronen.		*Dollars.*
Alive and uncured	.....	Free.	.....	.....
Dried or salted, &c	100 lbs ..	6.25	Cwt.....	1.7001

FRANCE.

		Francs.		*Dollars.*
Fresh.....Gross..	100 kilos	5.00	100 lbs..	44
Codfish (including stockfish and klepfish), dried, salted, or smoked.....Net..	... do ...	48.00	....do ...	4 20
Other, dried, salted, or smoked.....Gross..	... do ...	10.00	....do ...	88
Preserved in oil, pickled, or otherwise prepared.....Gross..	....do ...	10.00	....do ...	88
Oysters:				
Fresh, young, for propagation.....	.....	Free....	.....	.....
Fresh, other.....Gross..	1,000....	1.50	1,000....	29
Pickled.....Gross..	100 kilos	10.00	100 lbs..	88
Lobsters:				
Fresh.....Gross..	....do ...	5.00	....do ...	44
Preserved or prepared.....Gross..	....do ...	10.00	....do ...	88
Shell-fish.....	.....	Free....	.....	.....
Parings, cod, and mackerel.....Gross..	100 kilos	60	....do ...	05

GERMANY.

		Marks.		*Dollars.*
Fresh.....	.....	Free....	.....	.....
Salted (except herrings), imported in barrels, dried, smoked, roasted, merely boiled.....	100 kilos	3.00	.....	71 4/10
Pickled, in barrels.....	....do ...	12.00	.....	2 85
Prepared, others, fish of all kinds imported in vessels hermetically closed.....	... do ...	60.00	.....	14 28
Herrings, salted.....	Cask....	3.00	.....	71 4/10

ITALY.

		Francs.		*Dollars.*
Fresh.....	.....	Free....	.....	.....
Dried or smoked.....	100 kilos	5.00	.....	96½
Preserved in salt.....	....do ...	6.00	.....	1 15⅗
Preserved in oil.....	....do ...	10.00	.....	1 93
Preserved in boxes.....	....do ...	10.00	.....	1 93
(Sardines, anchovies, and the like, preserved in salt, are admitted free when imported from the most favored nations.)				

No. 89.—Tariffs of different countries on Importations of Fish—Continued.

COUNTRIES IN EUROPE—Continued.

PORTUGAL.

Fish.	Tariff rates of duty		Equivalent in United States money.	
	Unit.	Duty.	Unit.	Duty.
		Reis.		*Dollars.*
Fish, 6 per cent. ad valorem.				4
Sea or fresh water, 6 per cent. ad valorem.	Kilo	35		00 2/5
Fresh-water fish, preserved in any way	do	4½		3¾
Salt-water fish, preserved in any way	do	33½		7¾
Prepared fish, not specified	do	70		1/5
Fish in oil, including tare	do	2½		
Shell-fish, fresh or preserved				

RUSSIA.

		Rubles.		*Dollars.*
Fresh	1 pood	.12	36 lbs	06
Dried	do	.22	do	11
Smoked and salted, except herrings	do	1.20	do	60
In oil and the like	do	4.80	do	2 40
Herring, smoked or salted	do	.22	do	11

SPAIN.

		Pesetas.		*Dollars.*
Fresh fish	Kilo	1.50		.2895
Fish in tins	Kilogram	1.00		.0193
Fish, salted, smoked, or pickled	100 kilos	12.00		2.3160
Codfish, stockfish, dried and salt	do	23.50		4.5355
Shell-fish	do	3.00		.5790

SWEDEN.

		Crowns.		*Dollars.*
Anchovies and sardels in oil or brine in hermetic boxes (weight of boxes included).	100 kilos	20.00		2 72
Other kinds of conserves (weight of boxes included)	do	30.00		4 08
All other kinds of fish, fresh, dry, or salted	do	Free		

UNITED KINGDOM.

Fish	Free of duty.

COMMERCE BETWEEN THE UNITED STATES AND BRITISH NORTH AMERICAN POSSESSIONS.

No. 90.—STATEMENT showing the QUANTITIES and VALUES of MERCHANDISE IMPORTED into the UNITED STATES from the DOMINION OF CANADA during the Year ending June 30, 1886.

ARTICLES.	Quantities.	Values.
Free of duty.		
ANIMALS, not elsewhere specified:		*Dollars.*
Cattle.....No..	2,581	339,632
Horses.....No..	5,288	1,186,917
Sheep.....No..	1,380	23,696
All other, including fowls.....	.....	127,706
Total.....	.....	1,677,951
Articles, the growth, produce, or manufacture of the United States, returned.	.....	1,990,531
Art-works, not elsewhere specified: Paintings, statuary, fountains, and other works of art, the production of American artists.....	.....	2,964
Bark, hemlock.....cords..	55,930	259,479
Books and other printed matter, not elsewhere specified.....	.....	11,498
CHEMICALS, DRUGS, AND DYES, not elsewhere specified:		
Argal, or argol, or crude tartar, and argol dust.....lbs..	3,289	168
Cochineal.....lbs..	97	29
Logwood.....tons..	1	34
Camphor, crude.....lbs..	4,473	854
Indigo.....lbs..	1,888	1,518
Mineral waters, all not artificial.....galls..	3,786	385
Quinia, sulphate of, salts of, and cinchonidia.....oz..	200	130
Sulphur or brimstone, crude.....tons..	.....	9
All other.....	.....	73,114
Total.....	.....	76,241
Coffee.....lbs..	249,104	23,272
Cotton, unmanufactured.....lbs..	2,350	306
Eggs.....doz..	14,465,764	1,893,672
Farinaceous substances, and preparations of, not elsewhere specified.....	.....	167
FERTILIZERS:		
Guano.....tons..	.....	3
Phosphates, crude or native, for fertilizing purposes.....tons..	676	6,740
All other.....	.....	82,215
Total.....	.....	88,958
FISH, not elsewhere specified:		
Fresh, salmon.....lbs..	1,422,620	144,779
Other.....lbs..	18,866,687	519,961
Lobsters, canned or preserved.....	.....	338,982
All other.....	.....	61,694
Total.....	.....	1,065,416
FRUITS, INCLUDING NUTS, not elsewhere specified:		
Bananas.....	.....	20
All other.....	.....	122,838
Total.....	.....	122,858
Furs, and fur skins, undressed.....	.....	696,343
Hair, not elsewhere specified.....	.....	17,113
Hides and skins, other than fur-skins.....	.....	495,970
Household and personal effects, and wearing-apparel in use, and implements, instruments, and tools of trade of persons arriving from foreign countries and of citizens of the United States dying abroad		

No. 90.—MERCHANDISE IMPORTED from the DOMINION of CANADA, &c., 1886—Continued.

ARTICLES.		Quantities.	Values.
	Free of duty—Continued.		*Dollars.*
Plumbago	cwts..	6,403	2,405
Seeds, not medicinal, not elsewhere specified			12,844
Silk, unmanufactured: Waste	lbs..	1,123	822
	lbs..	1,465	338
	lbs..	740	35
		2,205	373
SPICES, UNGROUND:			
Pepper	lbs..	138,157	21,072
All other	lbs..	70	7
Total	lbs..		1,362,237
Tea	lbs..		380,784
Tin, bars, blocks, or pigs, grain or granulated			
Wood, unmanufactured, not elsewhere specified			12,005,533
All other free articles			
TOTAL FREE OF DUTY			
	Dutiable.		
ANIMALS, not elsewhere specified:			
Cattle	No..	33,165	448,430
Horses	No..	15,854	1,762,858
Sheep	No..	363,862	943,514
All other			8,938
Total			3,163,740
Art-works, not elsewhere specified: Paintings, in oil or water colors, and statuary			1,804
Books, maps, engravings, etchings, and other printed matter, not elsewhere specified			34,942
Brass, and manufactures of			1,368
BREADSTUFFS:			
Barley	bush..	10,194,107	7,175,397
Corn	bush..	204	95
Oats	bush..	90,124	30,441
Oatmeal	lbs..	33,390	780
Rye	bush..	173,787	128,175
Wheat	bush..	379,569	328,500
Wheat-flour	bbls..	1,694	5,912
All other breadstuffs, and preparations of, used as food, not elsewhere specified			113,751
Total			7,783,051
Bristles	lbs..	50	94
Brushes			238
Buttons, except of brass, gilt, or silk, and button-molds, and button materials made in patterns or cut for buttons exclusively			49,168
Cement	bbls..	18	62
CHEMICALS, DRUGS, DYES, AND MEDICINES, not elsewhere specified:			
Coal-tar colors and dyes	lbs..	500	898
Glycerine	lbs..	31,373	86
Potash, nitrate of, or saltpeter, crude			1,034
Soda—			
Bicarbonate of	lbs..	171,949	2,275
Carbonate, including sal-soda and soda-ash	lbs..	336,734	4,203
Caustic	lbs..	83,389	1,673
All other salts of	lbs..	37,194	431
Total	lbs..	629,266	8,582
		22,400	850
	lbs..		26,368
			27,818

No. 90.—MERCHANDISE IMPORTED from the DOMINION of CANADA, &c., 1886—Continued.

ARTICLES.	Quantities.	Values.
Dutiable—Continued.		
COPPER, AND MANUFACTURES OF:		*Dollars.*
Ore (fine copper contained therein) ..... lbs..	3, 319, 333	332, 240
Pigs, bars, ingots, old, and other manufactured ..... lbs..	1, 735	58
All other manufactures of	.....	250
Total copper, &c., not including copper ore	.....	308
COTTON, MANUFACTURES OF:		
Cloths—		
Not bleached, dyed, colored, stained, painted, or printed .. sq. yards..	232	22
Bleached, dyed, colored, stained, painted or printed ..... sq. yards..	1, 620, 631	160, 250
Total ..... sq. yards..	1, 620, 863	160, 272
Clothing, ready-made, and other wearing-apparel, not including knit goods	.....	891
Embroideries, laces, insertings, trimmings, and lace window-curtains	.....	379
Knit goods: Stockings, hose, half-hose, shirts, drawers, and all goods made, fashioned, or shaped on knitting-machines, or frames, or knit by hand..	.....	8
Thread (not on spools), yarn, warps, or warp-yarn ..... lbs..	1, 601	395
All other	.....	3, 219
Total cotton, manufactures of	.....	165, 164
EARTHEN, STONE, AND CHINA WARE:		
China, porcelain, parian, and bisque, earthen, stone, and crockery ware—		
Not decorated or ornamented	.....	352
Decorated or ornamented	.....	572
All other	.....	7, 381
Total	.....	8, 305
FANCY ARTICLES:		
Beads (except amber) and bead ornaments	.....	115
Dolls and other toys	.....	550
Fans, except palm-leaf	.....	314
Feathers, ornamental, natural	.....	52
Feathers and flowers, artificial	.....	2
Perfumeries, cosmetics, and all toilet preparations	.....	1, 627
Pipes of all kinds, and smokers' articles	.....	35
All other	.....	2, 590
Total	.....	5. 285
FISH, not elsewhere specified:		
Anchovies and sardines, packed in oil or otherwise	.....	1, 105
Cod, haddock, hake, and pollock, dried, smoked, or pickled ..... lbs..	11, 726, 134	263, 357
Herring—		
Dried or smoked ..... lbs..	4, 626, 098	75, 723
Pickled or salted ..... bbls..	38, 439	117, 195
Mackerel, pickled ..... bbls..	50, 840	307, 529
Salmon, pickled ..... bbls..	3, 320	37, 406
All other	.....	155, 225
Total	.....	957, 540
FLAX, HEMP, JUTE, AND OTHER VEGETABLE SUBSTANCES, AND MANUFACTURES OF:		
Unmanufactured—		
Flax ..... tons..	1, 254	215, 714
Hemp, and all substitutes for hemp ..... tons..	1	157
Total ..... tons..	1, 255	215, 871
Manufactures of flax, hemp, or jute, or of which flax, hemp, or jute shall be the component material of chief value—		
Bags and bagging, and like manufactures	.....	109
Brown or bleached linens, ducks, canvas, paddings, cot-bottoms, diapers, crash, huckabacks, handkerchiefs, and lawns	.....	280
Cables and cordage ..... lbs..	3, 179	
Thread, twine, and pack-thread		
All other		

No. 90.—MERCHANDISE IMPORTED from the DOMINION of CANADA, &c., 1886—Continued.

ARTICLES.	Quantities.	Values.
		Dollars.
Dutiable—Continued.		5,978
All other fruits ..... lbs..	16	3
Nuts—		447
Almonds		18,555
All other		10,309
Total		
Furs, dressed on the skin, and manufactures of fur		1,624
GLASS AND GLASSWARE:		101
Bottles, vials, demijohns, carboys, and jars, empty, or filled ..... lbs..	1,499	
Cylinder, crown, and common window glass, unpolished ..... sq. feet..	458	540
Plate glass—		2
Unsilvered ..... sq. feet..	28	1,671
Silvered		3,338
All other		27
Total		4,524
Hair, not elsewhere specified, and manufactures of	91,951	1,034,496
Hats, bonnets, and hoods, and materials for ..... tons..	546	124
Hay ..... lbs..		2,476
Hops		
India-rubber and gutta-percha, manufactures of	8,104	25,731
IRON AND STEEL AND MANUFACTURES OF:		
Ore, iron ..... tons..	7	103
Pig-iron ..... tons..	1,670	25,467
Scrap, fit only to be remanufactured—	915	14,279
Iron, wrought and cast ..... tons..	4,324	131
Steel ..... lbs..	26	165
Bar-iron, rolled or hammered ..... tons..	19,492	1,252
Bars, railway—	12,127	301
Of iron ..... lbs..	1,862,756	63,083
Ingots, blooms, slabs, billets, and bars of steel, and steel in forms not elsewhere specified ..... lbs..	16,800	75
Sheet, plate, and taggers' iron ..... lbs..	23,771	2,062
Tin-plates, terne-plates, or taggers' tin ..... lbs..	2,160	137
Wire rods (rivet, screw, nail, and fence), round, in coils and loops, of iron or steel ..... lbs..	3,730	191
Wire, and wire rope and strand, iron or steel ..... lbs..		249
Manufactures of, not elsewhere specified:		2
Anvils, axles, and forgings, of iron or steel ..... lbs..		1,393
Chains, of iron or steel		31,617
Cutlery		563
Files, file-blanks, rasps, and floats		53,986
Fire-arms		
Machinery		
Needles		195,056
All other		
Total iron and steel, &c., not including iron ore		2,629
JEWELRY, MANUFACTURES OF GOLD AND SILVER, AND PRECIOUS STONES:		65,647
Jewelry, and manufactures of gold and silver		105
Precious stones, not elsewhere specified, and imitations of, not set		
Lead, and manufactures of		1,711
LEATHER, AND MANUFACTURES OF:		748
Leather—		31,622
Bend, belting, and all sole-leather		
Calf-skins, tanned or tanned and dressed		34,081
Upper-leather of all other kinds, dressed, and skins, dressed and finished		
Total		111

No. 90.—MERCHANDISE IMPORTED from the DOMINION of CANADA, &c. 1886 . nued.

Articles.		Quantities.	Values.
Dutiable—Continued.			
MARBLE AND STONE, AND MANUFACTURES OF:			*Dollars.*
Marble and manufactures of, not elsewhere specified		.....	111
Stone and manufactures of, including slate		.....	92,756
Total		.....	92,867
METALS, METAL COMPOSITIONS, AND MANUFACTURES OF, not elsewhere specified:			
Bronze manufactures		.....	37
All other		.....	13,779
Total		.....	13,816
Mineral substances, not elsewhere specified		.....	3,646
Musical instruments, and parts of		.....	17,860
OILS, not elsewhere specified:			
Animal—			
Whale and fish	galls..	65,046	18,024
Other	galls..	3,476	1,382
Mineral	galls..	370,302	15,204
Vegetable—			
Fixed or expressed	galls..	667	319
Volatile or essential	lbs..	.....	1
Total		.....	34,930
Paints and colors		.....	1,051
Paper, and manufactures of		.....	6,828
PROVISIONS, comprising meat and dairy products:			
Meat products—			
Meats, prepared, of all kinds, and meat extracts		.....	492
All other		.....	133,213
Dairy products—			
Butter	lbs..	176,038	27,748
Cheese	lbs..	3,541	383
Milk, preserved or condensed		.....	969
Total		.....	162,805
RICE, not elsewhere specified:			
Rice	lbs..	246,498	5,080
Rice, granulated, or rice-meal	lbs..	25,200	504
Total	lbs..	271,698	5,584
Salt	lbs..	28,939,667	53,317
SEEDS, NOT MEDICINAL, not elsewhere specified:			
Linseed, or flaxseed	bush..	35	30
All other		.....	2,097
Total		.....	2,127
SILK, MANUFACTURES OF:			
Clothing, ready-made, and other wearing-apparel		.....	195
Dress and piece goods		.....	366
All other		.....	2,561
Total		.....	3,122
Soap		.....	663
Spices, ground	lbs..	120	16
SPIRITS, DISTILLED, AND SPIRITUOUS COMPOUNDS:			
Brandy	proof galls..	7,021	14,660
All other	proof galls..	17,237	15,956
Total			
SUGAR, MOLASSES AND [illegible]			

No. 90.—MERCHANDISE IMPORTED from the DOMINION of CANADA, &c., 1886-Continued.

ARTICLES.		Quantities.	Values
	Dutiable—Continued.		*Dollars.*
TOBACCO, AND MANUFACTURES OF:			
Leaf—			
Suitable for wrappers	lbs.	24,730	3, 347
All other	lbs.	396,689	170,930
Total	lbs.	421,419	189,277
Manufactures of—			
Cigars, cigarettes, and cheroots		3,483	5,460
All other			23,390
Total			28,850
VEGETABLES:			
Beans and pease	bush.	608,444	524,978
Potatoes	bush.	1,441,504	369,965
Pickles and sauces			134
All other—			48,252
In their natural state, or in salt or brine			8,887
Prepared or preserved			
Total			952,216
WINES:			
Champagne, and other sparkling	galls.	360	4,544
Still wines—			
In casks	doz.	7,891	10,633
In bottles		170	1,162
Total			16,339
WOOD, AND MANUFACTURES OF:			
Unmanufactured, not elsewhere specified			54,304
Timber, sawed and hewn	M feet.	547,424	2,272
Lumber—			6,381,571
Boards, planks, deals, and other sawed lumber	M.	79,150	171,597
Shingles			757,208
Other lumber			53,420
Manufactures of—			93,014
Cabinet-ware and house-furniture			7,513,386
All other			
Total			267,054
WOOLS, HAIR OF THE ALPACA, GOAT, AND OTHER LIKE ANIMALS, AND MANUFACTURES OF:			
Unmanufactured—			
Clothing wools	lbs.	1,254,624	64,634
Combing wools	lbs.	312,436	5,500
Carpet and other similar wools	lbs.	59,988	
Total	lbs.	1,627,048	337,188
Manufactures of—			
Carpets and carpeting of all kinds	sq. yards.	1,354	963
Clothing, ready-made, and other wearing-apparel, except shawls and knit goods	lbs.		4,774
Cloths	sq. yards.	14,696	14,978
Dress-goods, women's and children's	lbs.	593	264
Knit goods			2,299
Rags, shoddy, mungo, waste, and flocks	lbs.	3,797	1,130
Shawls			186
Yarns		354	193
All other			8,159
			32,946
			917

No. 91.—STATEMENT showing the QUANTITIES and VALUES of MERCHANDISE IMPORTED from the United States and entered for CONSUMPTION in the DOMINION of CANADA, with the amounts of DUTY COLLECTED on the same, during the Year ending June 30, 1886.

[From the tables of the "Trade and Navigation of the Dominion of Canada."]

Abbreviation: n. e. s., not elsewhere specified.

DUTIABLE.

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
Ale, beer, and porter	Gallons	125,648	30,458	13,207 40
Ale, ginger	.....	.....	182	36 40
ANIMALS, LIVING:				
Cattle	Number	1,858	61,009	12,201 90
Horses	do	2,232	112,446	22,519 30
Sheep	do	30,427	61,643	12,328 75
Swine	do	16,488	121,558	24,311 60
All other, n. e. s	.....	.....	12,977	2,600 90
Total	.....	.....	369,633	73,962 45
Bagatelle tables, cues, and balls	Number	4	115	39 65
Bags, containing fine salt	do	6,096	332	83 00
Baking powder	.....	.....	121,664	24,387 44
Belts and trusses	.....	.....	20,006	5,002 69
Bells, except for churches	.....	.....	6,881	2,064 30
Billiard tables	Number	20	2,902	965 30
Bird cages	.....	.....	3,560	1,068 00
Blacking	.....	.....	36,067	9,017 78
Black lead	.....	.....	8,800	1,761 00
Blueing (laundry)	.....	.....	1,033	258 25
Books, periodicals, and all printed matter	.....	.....	724,661	148,003 51
Bookbinders' tools	.....	.....	12,450	1,244 90
Boot, shoe, and stay laces	.....	.....	12,548	3,764 40
Braces and suspenders	.....	.....	32,195	9,657 95
Brass and manufactures of	.....	.....	240,122	68,457 01
BREADSTUFFS:				
Arrowroot and tapioca	Pounds	131,687	5,038	1,027 60
Bread and biscuit	do	487,638	22,793	4,559 10
Macaroni and other similar preparations	do	53,192	3,216	643 30
Rice	do	595,851	15,649	5,958 51
Rice and sago flour	do	1,895	125	37 90
Barley	Bushels	8,134	5,497	1,220 14
Beans and pease	do	10,734	13,722	1,409 29
Buckwheat	do	23	21	2 32
Corn	do	1,825,383	835,839	136,904 61
Oats	do	98,357	32,939	9,835 67
Rye	do	18	15	1 85
Wheat	do	66,061	55,770	9,909 72
Cornmeal	Barrels	123,779	298,038	49,583 82
Oatmeal	Pounds	183,946	5,909	919 69
Rye flour	Barrels	116	482	58 87
Wheat flour	do	199,375	777,848	99,678 00
All other breadstuffs	.....	.....	70,751	14,010 53
Total	.....	.....	2,143,652	335,760 92
BRICK AND TILES:				
Building brick	Thousands	813	4,158	831 75
All other	.....	.....	74,703	16,849 90
Total	.....	.....	78,861	17,681 65
Brooms of all kinds	.....	.....	1,323	330 75
Brushes of all kinds	.....	.....	38,649	9,664 00
Buttons	.....	.....	94,607	23,651 61
Candles of all kinds	Pounds	110,315	14,201	3,581 75
Cane or rattan, manufactured	.....	.....	8,174	2,051 81
Caplins, unfinished Leghorn hats	.....	.....	1,104	220 80
CARRIAGES, WAGONS, AND CARTS				
Sleighs and cutters				

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued.

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
Cars, railway, passenger and freight			215,485	64,645 50
Carpets	Yards	5,573	2,354	588 50
Cases, jewel and watch, and other fancy cases			14,653	4,395 90
Celluloid, molded into sizes for knife handles			26	2 60
Cement, hydraulic and other			15,519	4,594 88
Chalk	Pounds	5,719	5,000	1,000 25
Chicory			347	213 02
Cider, refined	Gallons	83,885	10,865	2,489 80
Clocks, and parts of			106,009	36,832 10
Coal:				
Anthracite	Tons	995,402	4,027,981	497,688 12
Bituminous	do	832,939	2,419,586	499,763 06
Dust	do	36,229	36,992	7,398 40
Total			6,484,559	1,004,849 58
Coke	Tons	10,416	35,491	5,209 57
Coal tar and coal pitch	Barrels	19,353	26,896	2,691 70
Cocoa matting			738	184 50
Cocoanuts	Number	408,185	13,665	4,081 85
Cocoanuts, desiccated	Pounds	38,834	6,661	2,526 00
Cocoa paste and chocolate	do	93,379	18,540	3,953 30
Coffee:				
Green	do	920,610	96,204	9,620 45
Roasted	do	88,879	16,252	4,286 67
Roasted and ground, imitations of	do	6,380	615	191 40
Total			113,071	14,098 52
Collars, cuffs, shirt fronts of paper, linen or cotton			80,433	24,119 70
Combs			23,219	5,806 50
Copper, and manufactures of:				
Pig, old, bars, rods, and ingots	Cwts	3,793	31,265	3,126 50
Tubing, seamless drawn	Feet	44,325	11,440	1,144 00
Other manufactures of			23,364	6,708 20
Total			66,069	10,978 70
Cordage, all kinds	Pounds	735,571	73,056	15,162 47
Corks, cork wood, and bark, manufactured			25,054	5,010 80
Cotton, manufactures of:				
Sheeting, drills, and other cloths, bleached and unbleached.	Sq. yards	1,000,287	124,776	29,024 65
Ginghams, or plaids, dyed or colored	do	101,875	12,168	3,886 09
Denims, drills, and other cloths, colored	do	587,532	88,821	25,053 96
Printed or dyed fabrics	Yards	4,759,877	262,115	75,454 35
White cotton jeans and coutilles	do	478,490	42,078	8,415 60
Cotton for manufacturing enameled cloth	do	351,510	28,387	4,258 05
Damask, bleached and unbleached	do	5,480	1,060	272 00
Cords, braids, gimps, and trimmings			15,932	3,186 40
Handkerchiefs			162	40 50
Wadding and paddings	Pounds	345,044	45,419	15,725 24
Yarns, knitting and hosiery	do	40,039	9,283	2,428 24
Bags, seamless	do	59,048	11,064	2,848 84
Warp on beams	do	5,670	337	107 25
Shirts, drawers, hosiery, and knitted cloth	Yards		34,137	10,241 11
Thread			14,392	2,842 17
Comforters and quilts			1,108	304 33
Other materials, n. e. s.	Number	702	178,515	53,568 30
			9,638	2,889 90
			2,152	215 20

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued.

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
Crapes of all kinds			1,146	229 20
Crucibles	Number ..	41,288	3,672	752 10
DRUGS, DYES, CHEMICALS, AND MEDICINES:				
Acids—				
Acetic	Gallons ...	5,872	6,875	2,845 11
Sulphuric	Pounds ...	506,904	7,874	2,534 55
Mixed	....do	44,152	2,591	645 40
All other			11,522	2,304 00
Aniline dyes	Pounds ...	311	288	29 20
Collodion	....do	7	7	1 40
Gelatine, and all similar preparations	... do	3,480	2,453	490 60
Glue	....do	437,773	48,335	9,667 05
Glycerine	....do	43,488	5,758	1,151 60
Gums	....do	45,133	18,420	3,684 04
Lime and lemon juice			595	119 00
Acetate of lime	Pounds ...	6,978	41	8 20
Acetate and nitrate of lead	....do	7,405	422	21 10
Liquorice, paste, &c	....do	63,706	11,807	2,611 69
Magnesia	....do	353	65	13 00
Milk food	....do		4,657	1,397 10
Morphine		3	7	1 40
Opium for smoking	Ounces ...	14	243	70 00
Proprietary medicines	Pounds ...		155,692	54,170 26
Saleratus		9,094	792	158 40
Potash:	Pounds ...			
Chlorate of	....do	4,040	492	98 40
Nitrate of (saltpeter)	....do	3,531	186	37 20
Prussiate of	....do	746	354	35 40
Soda, bi-carbonate of	....do	130,514	5,535	1,107 00
Sumac	....do	13,591	647	129 40
Vaseline and similar petroleum preparations	....do	38,633	4,781	1,558 98
Yeast-cakes	....do	45,913	9,247	3,006 00
Zinc, chloride, salts, and sulphate of	....do	7,215	308	15 40
All other			174,430	34,802 59
Total			501,167	122,713 47
Earthen and china ware			41,415	12,400 21
Electric and galvanic batteries			14,517	3,630 95
Electric-light apparatus			35,030	8,756 88
Embroideries, n. e. s			1,848	401 80
Emery-wheels			5,522	1,382 75
Essences, of apple, pine-apple, and other fruits	Gallons ...	344	2,774	1,210 13
Excelsior, for upholsterers's use			2,495	498 80
FANCY GOODS:				
Alabaster and spar ornaments			4,702	1,216 20
Beads and bead ornaments			5,868	1,560 60
Boxes and fancy cases, and writing-desks			1,921	563 05
Braids, cords, gimps, fringes, and bindings			14,102	4,138 22
Bone, shell, horn, and ivory ornaments			14,284	2,907 50
Fans, not printed			6,289	1,572 49
Flowers, artificial			14,863	3,716 20
Feathers			18,246	4,317 95
Gold and silver cloth, tassels, and thread			440	88 00
Dice, draughts and chessmen, of bone or ivory			1,276	255 20
Lace, lace-curtains, collars, and similar goods			57,424	12,977 40
Millinery			2,198	577 95
Toys			34,801	9,160 15
Jet manufactures			1,042	208 40
All other			13,808	3,025 63
Total			191,256	46,284 94
Felt, for roofing, and other			15,990	3,265 88
Fertilizers				
Fireworks				

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued.

Articles.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
FISH—Continued.				
Oysters:				
In shell	Barrels	1,894	8,169	2,042 46
Shelled, in bulk	Gallons	207,804	222,629	20,780 50
Canned			41,815	9,717 81
Lobsters			3,125	651 99
Bait fish, fresh and salted	Pounds	8,200	179	64 00
Salmon, fresh, salted, or cured	do	47,003	2,396	535 26
Smoked and boneless fish	do	334,155	16,360	3,341 55
Anchovies and sardines			3,711	1,058 79
Fish preserved in oil			3,323	843 37
All other, not in barrels			2,709	507 85
Fresh, n. e. s			1,029	205 80
Total			395,520	56,262 98
Fish oil	Gallons	26,932	10,553	2,110 60
Packages containing oysters			17,957	4,493 47
FLAX, HEMP, AND JUTE, MANUFACTURES OF:				
Carpeting and mats			3,361	840 25
Sail twine	Pounds	4,752	999	49 95
Damask, bleached or unbleached	Yards	7,424	1,504	376 50
Fiber, scutched	Pounds	21,195	2,528	211 95
Tow	do	29,759	642	148 84
Towels			960	240 00
Sheeting	Yards	570	58	11 60
Linens, brown or bleached	do	15,270	2,389	477 80
Duck, canvas, and like cloth			14,856	2,971 10
Clothing			988	296 40
Thread			980	196 00
Yarn, jute	Pounds	1,681	375	75 00
All other			30,160	6,032 00
Total			59,800	11,927 39
FRUITS AND NUTS:				
Apples, dried	Pounds	239,562	12,907	4,788 74
Currants, dried	do	300,494	12,724	2,484 72
Dates	do	294,449	8,300	1,698 04
Figs	do	19,034	1,954	376 64
Prunes and plums	do	238,494	9,256	2,104 47
Raisins	do	1,118,742	43,437	8,654 13
All other dried fruits			11,471	2,002 04
Almonds:				
Shelled	do	14,902	2,271	587 70
Not shelled	do	112,509	10,475	2,299 20
Filberts and walnuts	do	258,027	15,625	3,597 71
All other nuts, n. e. s			61,950	16,754 48
Apples, green	Barrels	31,278	63,366	12,511 90
Blackberries, raspberries, and strawberries	Pounds	231,378	23,557	8,473 59
Cherries and currants	Quarts	51,085	4,914	510 85
Cranberries, plums, and quinces	Bushel	17,170	34,650	5,150 86
Grapes	Pounds	389,868	27,340	7,797 39
Peaches	do	592,880	42,571	5,928 80
Oranges and lemons			196,656	39,330 95
All other green fruits			108,645	21,734 72
Canned fruits			34,578	19,199 01
Preserved fruits	Pounds	591,765	2,325	1,169 56
Total			728,972	167,155 50
			129,181	21,572 35
				76,829 70

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued.

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
Gloves and mitts, except of leather			4,841	1,246 50
Gold and silver manufactures			154,778	44,415 47
Grease, axle, and other	Pounds	196,983	7,906	1,969 83
Gunpowder and other explosives	do	204,961	28,261	11,993 72
Cartridges and cartridge cases			48,375	14,512 38
GUTTA-PERCHA AND INDIA-RUBBER, MANUFACTURES OF:				
Boots and shoes			189,508	47,407 26
Belting			37,445	9,615 50
Clothing			85,329	29,865 50
Hose			30,422	7,941 02
All other			155,755	38,988 08
Total			498,459	133,817 36
Hair and manufactures of			22,963	4,616 90
HATS, CAPS, AND BONNETS:				
Silk or felt			342,485	85,620 75
Straw, grass, &c			215,807	53,954 70
All other			36,249	9,062 31
Total			594,541	148,637 76
Hay	Tons	814	6,697	1,339 60
Honey	Pounds	17,128	1,905	513 84
Hops	do	164,369	23,559	9,862 16
Ink			55,026	11,687 15
IRON AND STEEL, AND MANUFACTURES OF:				
Agricultural implements:				
Drills	Number	312	3,538	1,238 30
Fanning-mills	do	147	1,698	594 30
Forks	do	32,916	8,215	2,874 84
Harrows	do	190	3,108	1,099 41
Harvesters and reapers	do	135	23,192	8,117 20
Hoes	do	5,586	2,050	717 10
Mowing-machines	do	162	4,710	1,648 50
Plows	do	442	6,940	2,423 00
Rakes, horse and hand	do	12,825	2,546	887 90
Scythes	do	3,219	15,443	5,657 85
Spades and shovels	do	35,320	16,758	5,865 45
All other agricultural implements			46,514	16,408 56
Anvils	Cwts	28	241	72 30
Axles	do	732	1,658	414 50
Band and hoop iron	do	3,764	11,318	1,490 03
Bars	do	12,500	28,097	4,911 91
Boiler plate	do	8,271	20,607	2,576 25
Bolts, nuts, and rivets			39,192	12,500 07
Bedsteads			2,434	851 91
Canada plate	Cwts	398	878	109 75
Car wheels	do	2,138	5,734	1,433 38
Castings, n. e. s			220,759	55,431 85
Cast-iron pipe			17,076	4,552 70
Chains and cables	Cwts	2,173	6,325	853 55
Engines and boilers			208,885	52,915 35
Fire extinguishers	Number	28	1,799	449 75
Hardware, builders' and cabinet-makers'			491,272	147,409 38
Hardware, carriage			1,902	665 70
Hardware, house-furnishing			124,637	37,438 75
Hardware, all other			3,401	782 10
Hollow-ware			85,399	21,352 25
Horseshoes and horseshoe nails			3,888	1,248 90
Iron bridge and structural iron work	Cwts	2,043	8,916	2,229 00
Locks of all kinds			67,022	20,107 10
Machinery			879,456	221,024 80
Sewing-machines				
Malleable castings				

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued,

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
IRON AND STEEL, &c.—Continued:				
Railway bars	Cwts	689	4,104	615 60
Railway fish plates	do	583	1,887	331 23
Rolled beams and T-irons	do	9,691	21,487	2,688 09
Safes, and doors for safes and vaults			9,046	2,261 50
Screws (wood-screws)			3,289	1,147 47
Scales and balances	Cwts	5,661	25,247	7,577 15
Sheet-iron	Pairs	4,706	20,248	2,765 44
Skates	Number	1,923	14,824	4,447 60
Stoves			22,522	5,631 60
Tacks, brads, and sprigs	Feet	926,189	5,061	1,518 30
Tubing, wrought and boiler tubing	Pounds	282,600	94,395	19,934 03
Wire	Cwts	1,813	48,181	10,404 61
Wire rope, strand or chain			10,291	2,574 07
Wire work, all other			75,871	19,008 57
All other manufactures of iron			21,000	4,182 76
Steel, manufactures of:				
Knives and all other cutlery			44,834	11,211 87
Coil and other springs			13,700	4,109 85
Files and rasps			30,233	10,580 40
Locomotive tires	Cwts	877	2,217	221 70
Firearms			56,262	11,254 30
Needles, sewing and knitting			16,500	3,484 20
Surgical instruments			3,559	713 70
Ingots, bar and sheets	Cwts	24,988	96,154	13,242 90
Tools, edge and mechanics'			156,860	47,069 33
Saws			59,994	17,986 93
All manufactures of iron and steel n. e. s			47,096	9,426 85
Total			3,673,321	928,151 56
Ivory, manufactures of, n. e. s			880	176 00
Jewelry, of gold and silver			313,843	62,759 39
Lead, and manufactures of			14,378	3,222 33
LEATHER AND MANUFACTURES OF:				
Sole leather:				
Tanned, but rough or undressed	Pounds	123,802	25,993	2,599 30
Tanned, but not waxed or glazed	do	674,087	166,828	25,033 76
Tanned, waxed or glazed	do	5,286	2,679	535 90
Upper leather:				
Tanned, but not waxed or glazed	do	26,266	8,542	1,282 38
Tanned calf, kid, lamb, and sheep skin not waxed or glazed.	do	40,547	20,542	3,081 30
Tanned calf, waxed or glazed	do	97,154	94,674	18,934 80
Cordova leather	do	581	431	107 75
Glove leathers, tanned or dressed, colored or not colored.	do	79,691	55,597	5,559 74
Upper-leather, dressed, and waxed or glazed	do	7,741	4,754	950 80
Japanned, patent, or enameled leather	do	31,888	14,465	2,892 80
Morocco skins, tanned, but rough or undressed	do	13,067	7,675	767 50
All other leather and skins, tanned not elsewhere specified.	do	168,859	112,021	22,408 53
Boots and shoes	Pairs	171,372	164,960	41,256 08
Harness and saddlery, and parts of			27,885	7,440 85
Gloves and mitts of kid and leather			32,373	8,270 21
Leather belting			32,253	8,066 15
Manufactures of, all other, not elsewhere specified.			71,596	17,904 05
Total			843,268	167,091 90
Lime	Barrels	11,021	9,347	1,869 49
Lithographic stones, not engraved			2,483	496 60
Clothing and clothing	Number		4,668	1,169 00
		109	1,620	404 88
			17,456	2,987 19

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUITABLE—Continued.

ARTICES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
Mats and rugs	.....	.....	15,546	3,886 40
METAL AND MANUFACTURES OF:				
Babbitt metal	.....	.....	4,293	429 30
Britannia metal, manufactures of, not plated	.....	.....	60,997	15,249 25
Bronze or Dutch metal	.....	.....	1,928	385 60
Phosphor-bronze	.....	.....	249	24 90
Gas, coal-oil, and kerosene fixtures, and parts thereof	.....	.....	47,185	14,155 45
German and nickel silver:				
Not plated	.....	.....	14,235	3,558 75
In sheets	.....	.....	45	4 50
Japanned and stamped wares, not otherwise provided for.	.....	.....	21,098	5,274 50
Nickel anodes	.....	.....	2,170	217 00
Pins	.....	.....	9,789	2,936 65
Screws of iron, steel, brass, or other metal	.....	.....	9,235	2,769 07
Stereotypes and electrotypes of standard books	.....	.....	5,669	566 90
Stereotypes for blanks and advertisements	.....	.....	11,973	2,394 45
Stereotypes of type-metal	Pounds ...	4,421	1,139	221 09
Umbrella and parasol ribs, of steel, iron, or brass	.....	.....	10	2 00
Type for printing	.....	.....	27,398	5,479 60
Type metal	.....	.....	451	45 40
Pewter, platina, and metal compositions, not elsewhere specified	.....	.....	3,561	714 50
Total	.....	.....	221,425	54,428 91
MINERAL SUBSTANCES, not elsewhere specified:				
Asbestos, and manufactures of	.....	.....	6,283	1,579 95
Meerschaum, manufactures of	.....	.....	201	40 20
Mineral and bituminous substances	.....	.....	18,219	3,644 10
Plumbago	.....	.....	4,338	433 80
Plumbago, manufactures of	.....	.....	1,325	265 00
Total	.....	.....	30,366	5,963 05
Mineral and aerated waters, not elsewhere specified	.....	.....	2,402	480 40
MUSICAL INSTRUMENTS:				
Organs, reed:				
Having not over two sets of reeds	Number ..	284	14,513	5,017 05
Having not over four sets of reeds	....do	74	5,850	1,987 50
Having not over six sets of reeds	....do	6	567	205 02
Having over six sets of reeds	....do	1	340	81 00
Reeds, sets, or part of sets of, for cabinet organs	.....	.....	8,614	2,153 50
Pipe organs	.....	.....	4,305	1,076 25
Piano-fortes:				
Square, not over seven octaves	....do	54	8,802	2,670 30
All other	....do	286	60,039	17,585 85
Upright	....do	640	148,928	41,534 12
Concert or parlor grand	....do	29	15,220	3,733 00
Parts of	.....	.....	42,281	10,570 25
Musical instruments, all other, not elsewhere specified	.....	.....	28,501	7,125 25
Total	.....	.....	337,960	93,739 09
Mustard cake	Pounds ...	27,072	1,910	382 00
MUSTARD SEED:				
Unground	....do	11,118	746	102 65
Ground	....do	137,612	10,687	2,666 75
OILS, MINERALS.				
Coal and kerosene	Gallons ...	3,818,798	421,810	274,952 92
Products of petroleum	....do	407,189	59,591	29,318 56
Carbolic or heavy	....do	11,474	625	62 50
Total				

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued.

ARTICLES.	Units of quantities.	Quantities.	Value.	Duty collected
			Dollars.	*Dollars.*
	Gallons	567	520	104 40
	do	22,506	9,058	2,264 50
	do	32,160	16,330	3,266 30
	do	1	1	20
	do	23,357	7,259	1,451 80
Oils, vegetable:				
Castor				
Flax-seed				
Olive or salad				
Sesame				
Vegetable, not elsewhere specified				
Total			33,168	7,087 20
		113,781	57,142	14,296 79
Oils, lubricating:				
Composed wholly or in part of petroleum, costing 30 cents or over per imperial gallon	Gallons	237,543	32,595	17,105 48
Composed wholly or in part of petroleum, costing less than 30 cents per imperial gallon	do	81,179	38,661	9,695 77
All other	do			
Total			128,398	41,098 04
	Gallons	6,036	28,345	5,669 00
	do	73,258	17,745	3,548 90
Oils, volatile or essential				
Oils, all other, not elsewhere specified		81,317	22,086	6,676 35
	Sq. yards		94,674	28,526 27
Oil-cloth:				
Floor				7,260 29
Other			29,040	27,648 24
Optical instruments, including microscopes and telescopes			137,802	9,555 85
Packages			47,598	
Paintings, drawings, engravings, and prints				361 58
		144,630	2,143	14,190 38
	Pounds		56,625	1,220 90
Paints and colors:			12,209	128 85
Fire-proof paint, dry			2,561	4 60
Paint ground in oil		47,494	92	458 60
Lampblack and ivory-black	Pounds		4,586	1,796 10
White and red lead, dry		498,899	17,961	138 65
White lead in pulp	do	109,703	555	147 45
Ochers, dry, ground or unground	do	22,069	2,949	8,413 35
Paris green, dry	do	82,304	42,043	
Putty	do			
Zinc, dry white			141,724	26,860 46
Other paints and colors, not elsewhere specified				
			3,274	654 80
Total				
Palm leaf, &c., manufactures of			4,889	1,466 70
Paper, and manufactures:			9,255	4,365 64
Bags, printed		72,755	88,827	19,988 19
Cards, playing	Packs		35,210	10,563 95
Calendered paper				
Card-board and bristol-board, pasteboard, in sheets or cut			192	47 92
Felt paper for roofing		20,524	1,345	410 48
Hangings or wall-paper in rolls, costing 8 cents or less for rolls	Rolls		204,894	61,483 56
Hangings, &c., all other			2,505	1,526 58
Leather-board		50,886	5,287	1,112 40
Boot and shoe counters	Pounds	122,470	6,124	612 40
Mill-board, not straw-board	do		22,428	1,121 40
Collar-cloth paper			150,242	37,563 94
Envelopes, paper maché, and manufactures of paper not elsewhere specified				
Printing-paper			14,370	2,874 25
Ruled paper			28,769	7,192 25
		321,156	4,628	1,284 52
	Pounds		8,794	1,759 40
			60,764	12,151 58

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued.

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
Pomades, French or flower odors	Pounds	333	528	80 25
Pomades, other	do	13	21	6 30
Precious stones			554	55 40
Precious stones, imitations of			591	59 14
Printing-presses	Number	192	79, 878	7, 988 30
PROVISIONS, not elsewhere specified:				
Butter	Pounds	323, 590	64, 830	12, 943 50
Cheese	do	60, 569	9, 776	1, 817 10
Lard	do	3, 061, 537	192, 706	61, 235 27
Bacon, hams, shoulders, and sides	do	3, 557, 744	284, 178	71, 154 91
Beef	do	1, 406, 869	69, 893	14, 068 71
Beef, extract of, fluid			17, 300	4, 321 60
Mutton	Pounds	139, 119	7, 136	1, 391 19
Pork	do	14, 283, 340	644, 818	142, 833 40
Poultry and game			12, 642	2, 528 50
Prepared meats	Pounds	476, 524	50, 847	9, 530 49
Other meats, not elsewhere specified	do	62, 629	5, 375	1, 252 61
Beef in the carcass in bond for export	do	9, 931	634	99 31
Pork in the carcass in bond for export	do	159, 700	6, 811	1, 597 00
Total			1, 366, 946	324, 773 59
Pumice-stone, ground			194	38 80
Ribbons, not elsewhere specified			663	198 90
Sails, for boats; tents, and awnings			6, 011	1, 502 95
SALT:				
In bulk	Pounds	791, 535	2, 170	633 22
In bags and barrels	do	853, 182	4, 491	1, 023 77
Sand-paper, glass, flint, and emery-paper			20, 640	5, 159 50
Sausage-casings			8, 496	1, 699 20
SEEDS:				
Flaxseed	Bushels	20, 774	23, 214	2, 077 43
Flower, garden, &c			292, 196	44, 056 78
In small papers or parcels			5, 388	1, 347 78
Bulbous roots			1, 862	372 50
Total			322, 660	47, 854 49
SHIPS:				
Hull, rigging, &c., except machinery			26, 611	2, 661 10
Boilers, engines, and other machinery			13, 863	3, 465 75
Repairs to			13, 162	3, 292 73
SILK, AND MANUFACTURES OF:				
Cords and tassels, braids, fringes, and galloons			4, 529	1, 340 65
Dress and piece goods			6, 381	1, 914 22
Handkerchiefs			1, 754	526 20
Hosiery			155	46 65
Parasols, umbrellas, and sun-shades			578	173 40
Ready-made clothing			5, 448	1, 636 44
Ribbons			6, 218	1, 865 40
Silk in the gum, or spun	Pounds	43	54	13 50
Sewing silk and silk twist			30, 649	7, 687 40
Shawls			47	14 10
Silk, and all manufactures of, not elsewhere specified			63, 724	19, 117 34
Velvets	Yards	341	401	120 30
Total			119, 938	34, 455 60
SLATE, AND MANUFACTURES OF:				
Mantels			1, 666	499 80
Roofing				
School and writing	Squares			
Slabs				

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued.

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
SOAP—Continued.			47,301	14,787 51
Perfumed or toilet			33,246	12,044 92
Soap powders	Pounds	401,491		
Total			104,821	33,687 13
SPICES:				
Ginger, and spices of all kinds except nutmegs and mace	Pounds	605,160	62,349	6,234 90
Unground	do	189,523	10,564	2,642 40
Ground	do	8,171	3,093	773 25
Nutmegs and mace			76,006	9,650 55
Total				
SPIRITS AND WINES:				
Absinthe	Gallons	9	32	19 00
Brandy	do	392	1,301	1,424 46
Geneva gin	do	309	121	541 18
Old Tom gin	do	419	517	581 16
Rum	do	8	48	12 18
Whisky	do	8,154	14,589	9,691 98
Spirits unenumerated—				
Not sweetened or mixed	do	13,704	7,712	23,670 25
Sweetened and mixed	do	1,090	5,486	2,070 70
Spirits, &c., not elsewhere specified	do	339	1,355	837 47
Spirits as proprietary medicines	do	712	6,644	2,793 00
Cologne-water, &c.—				
In bottles weighing not more than 4 ounces	do	537	8,072	3,366 81
In bottles weighing more than 4 ounces	do	199	2,038	1,001 27
Wines of all kinds, except sparkling, containing—				
26 per cent. or less of spirits	do	7,468	7,330	4,069 77
Over 26 and not over 27 per cent.	do	2,319	3,551	1,764 76
Over 28 and not over 29 per cent.	do	27	106	40 98
Over 30 and not over 31 per cent.	do	427	443	303 70
Over 31 and not over 32 per cent.	do	703	461	440 59
Over 32 and not over 33 per cent.	do	2	9	3 62
Over 33 and not over 34 per cent.	do	133	98	94 57
Over 34 and not over 35 per cent.	do	4	12	5 68
Over 35 and not over 36 per cent.	do	12	55	23 10
Over 36 and not over 37 per cent.	do	96	85	81 18
Over 39 and not over 40 per cent.	do	3	5	3 51
Champagne and all other sparkling wines, containing—				
Not more than one quart and more than one pint.	Dozen	404	5,320	2,808 00
Not more than one pint and more than one half pint.	do	677	4,836	2,466 30
One half pint or less		48	219	101 70
Total			70,445	58,216 92
Sponges			20,201	4,040 30
Starch	Pounds	360,386	19,005	7,207 72
STONE, AND MANUFACTURES OF:				
Dressed freestone, and other building	Tons	1,115	4,781	956 20
Rough freestone, and other building	do	6,343	36,633	6,344 03
Grindstones	do	926	12,292	1,853 80
Manufactures of, not elsewhere specified			22,303	4,461 25
Flagstones, dressed	Tons	1,602	9,443	2,403 76
			85,452	16,019 04
				19 20
			96	1,535 00

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA &c., 1886—Continued.

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
SUGAR, &c. (under old tariff)—Continued.				
Molasses:				
Imported direct	Gallons	7,886	1,467	220 05
Not imported direct	do	46,049	7,413	1,482 60
SUGAR, SIRUPS, AND MOLASSES (under new tariff):				
Sugar—				
Imported direct, above No. 14	Pounds	159,619	10,085	5,923 30
Imported direct, not above No. 14	do	2,952	86	55 32
Not imported direct, above No. 14	do	37,100	952	956 65
Not imported direct, not above No. 14	do	20,504	635	425 19
Sugar, melada, concentrated melada, &c., not imported direct.	do	1,961,593	45,267	24,821 16
Sirups, cane-juice, and refined sirups	do	94,438	4,314	2,238 57
Molasses, other, not imported direct	Gallons	9,480	1,087	217 40
Sugar-candy and confectionery	Pounds	306,966	50,633	21,007 25
Total			416,485	204,141 20
Glucose, or grape sugar	do	8,091	313	189 53
Glucose sirup	do	815,111	24,014	16,310 62
Tallow	do	129,071	6,896	1,291 73
TEA:				
Black	do	175,755	38,655	3,865 69
Green and Japan	do	1,866,480	309,104	30,910 50
Telephones			6,184	1,543 32
Telegraphic instruments			9,432	2,358 00
TIN, AND MANUFACTURES OF:				
Cans or packages not exceeding 1 quart in contents.	Number	79		1 19
Cans or packages exceeding 1 quart in contents	do	600		18 00
Tin crystals			1,010	202 00
Tinware, and all manufactures of tin, n. e. s			108,575	27,148 30
Total			109,585	27,369 49
TOBACCO, AND MANUFACTURES OF:				
Cigars and cigarettes	Pounds	29,665	50,856	45,769 55
Snuff	do	10,821	2,404	3,530 35
All other manufactures of	do	151,652	61,165	52,682 98
Leaf, samples of	do	258	69	51 55
Tobacco pipes, n. e. s			4,503	900 95
Total			118,997	102,935 48
TREES:				
Fruit	Number	286,454	34,877	7,280 75
Do			7,192	1,438 20
Shade, lawn, and ornamental			38,094	7,619 27
Turpentine, spirits of	Gallons	350,995	145,225	14,562 55
Trunks, satchels, &c			49,634	14,890 24
Twines of all kinds	Pounds	505,589	68,070	17,020 50
Unenumerated articles			176,045	35,377 47
Varnish, lacquers, &c	Gallons	41,282	77,459	23,750 77
VEGETABLES:				
Potatoes	Bushels	58,157	26,609	5,816 08
Tomatoes	do	10,627	17,499	3,188 87
Canned:				
Packages not over 1 pound	Pounds	91,401	5,044	1,827 84
Packages over 1 pound	do	458,528	19,593	9,171 77
Prepared and preserved, n. e. s			3,222	644 40
Sweet potatoes and all other, n. e. s			78,645	15,729 18
Total			150,612	36,378 14
Vinegar	Gallons	7,268	1,469	1,090 09
WATCHES			46,217	11,557 77
Cases			76,136	19,034 00
Actions or movements				
Wax, and manufactures of				
Whips				

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

DUTIABLE—Continued.

ARTICLES.	Units of quantities.	Quantities.	Values.	Duty collected.
			Dollars.	*Dollars.*
WOOD, AND MANUFACTURES OF—Continued.			164,447	57,569 24
Furniture, house and cabinet			3,607	1,262 45
Caskets and coffins			7,270	1,090 80
Hubs, spokes, &c				
Moldings:			1,349	337 25
Plain	M	12,497	19,140	5,741 85
Gilded	M	596	15,155	3,032 90
Shingles			5,264	3,042 80
Show cases			27,724	6,931 17
Wooden ware			361,570	90,412 94
Manufactures of, n. e. s			88,123	17,661 15
Lumber and timber			17,628	6,169 71
Picture frames			6,766	1,691 50
Pipes, tobacco, wooden				
Total			861,127	233,269 65
Willow or ozier wares, &c			7,348	2,181 53
WOOL, MANUFACTURES OF:				
Blankets	Pounds	2,735	1,971	589 93
Cassimeres, cloths, coatings, &c	do	29,924	31,445	8,533 29
Flannels	Yards	8,279	9,286	2,478 35
Hosiery	Pounds	7,298	12,291	3,011 08
Shawls			1,979	494 63
Yarn	Pounds	2,184	1,982	546 69
All other, n. e. s	do		60,927	13,709 86
Clothing, ready made	Pounds	14,844	22,532	7,118 16
Carpets:				
Brussels and tapestry	Yards	8,447	5,032	1,258 00
Two-ply, &c., wholly of wool	Sq. yards	2,065	1,343	475 22
Two-ply, &c., partly of wool	do	829	442	131 57
Felt, pressed			6,280	853 52
Winceys	Yards	7,223	2,224	500 40
Woolen netting			4,521	452 10
Total			162,185	40,152 80
Wool, unmanufactured, class 1	Pounds	60	11	1 80
ZINC:				
Seamless drawn tubing	Feet	344	91	9 10
Manufactures of			6,138	1,534 65
Duty collected in Northwest Territory not classified				617 74
TOTAL DUTIABLE MERCHANDISE ENTERED FOR COMSUMPTION			29,659,876	6,769,354 69

FREE GOODS.

ARTICLES.	Units.	Quantities.	Value.
			Dollars.
THE MINE.			
Burr stones, in block, unmanufactured	Number	1,386	2,809
Chalk and cliff stone	Cwts	69	73
CLAYS:			
China clay, natural or ground	do	4,024	1,115
	do	59,010	8,774
	do	2,428	224
	do	29,056	6,372
	do		9,139
			2,354

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

FREE GOODS—Continued.

ARTICLES.	Units.	Quantities.	Value.
THE MINE—continued.			
MINERALS:			
Litharge	Cwts	1,314	4,223
All other			269
Mineral waters, natural, not in bottles	Gallons	14,805	1,584
Mineralogy, specimens of			214
Ores of metals, all kinds	Cwts	33,841	5,663
Precious stones			15,422
Salt, imported from the United Kingdom, or any British possession, or imported for the sea or Gulf fisheries.	Pounds	4,667,860	7,355
Silex or crystallized quartz	Cwts	2,520	1,313
Whiting or whitening	do	2,406	1,876
Total			76,414
THE FISHERIES.			
Ambergris			43
Furs or skins, undressed, the produce of fish, &c			151
Pearl, mother of, unmanufactured			57
Tortoise and other shells			457
Turtles	Number	116	416
Whalebone, unmanufactured	Cwts	13	3,077
FISH:			
Cod, haddock, ling, and pollock, fresh	Pounds	3,350	165
Bait, fish, clams, or other	Barrels	157	754
Fish-oil: Whale	Gallons	290	164
Total			5,284
THE FOREST.			
Corkwood			16,887
BARKS:			
Corkwood			25,503
Hemlock	Cords	49	209
Oak and tanners'			2,020
Ivory nuts (vegetable)			31,018
Logs, and round unmanufactured timber			493,196
LUMBER AND TIMBER, PLANK AND BOARD, SAWN, NOT SHAPED, PLANED, OR OTHERWISE MANUFACTURED:			
Boxwood, cherry, chestnut, gumwood, and hickory	M feet	314	12,177
Mahogany	do	144	22,166
Oak	do	1,744	51,151
Pitch pine	do	2,557	48,108
Rosewood and sandal wood	do	14	381
Spanish cedar	do	226	9,640
Walnut	do	3,087	154,199
Hickory, sawn to shape for spokes of wheels			13,409
Sawdust			379
Wood, for fuel, imported into Manitoba and Northwest Territory	Cords	1,373	5,577
Wood, all other, not further manufactured than sawn or split	M feet	42	1,771
Total			887,791
ANIMALS AND THEIR PRODUCTS.			
ANIMALS FOR IMPROVEMENT OF STOCK:			
Horses	Number	201	125,753
Cattle	do	159	70,791
Sheep	do	14	350
Swine	do	80	1,523
Fowls, pure bred, &c	do	1,023	3,258
Dogs	do	16	315
Imported for ranches in Manitoba and Northwest Territory:			
Horses and mules	do	577	26,150
Cattle	do	1,809	55,197
Sheep	do	2,543	6,357
Imported as settlers' effects into Northwest Territory—			
Horses and mules	do		
For zoological gardens			

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

FREE GOODS—Continued.

ARTICLES.	Units.	Quantities.	Value.
			Dollars.
ANIMALS AND THEIR PRODUCTS—continued.			
Cat-gut and whip-gut, unmanufactured, or manufactured for whip and other cord.	----------	----------	430
Eggs	Dozen ----	264,167	44,261
Fur skins, undressed	----------	----------	165,230
Grease for soap stock	Pounds ...	3,360,129	145,517
Guano and other animal manures	Cwts -----	4,983	2,924
HAIR, cleaned or uncleaned, but not curled and otherwise manufactured:			
Alpaca, angola, and goat	Pounds ...	56,427	4,711
Buffalo, bison, and camel	....do ----	55,787	3,143
Hog and horse	....do ----	76,594	22,696
Human	....do ----	368	3,189
Hatters' furs, not on the skin	----------	----------	19,652
Hides, raw, whether dry, salted, or pickled, skins and tails undressed.	----------	----------	1,650,541
Hoofs, horns, and horn tips	----------	----------	7,494
Ivory, unmanufactured	Pounds ...	697	2,939
Leeches	----------	----------	204
Musk, in pods or in grains	Ounces ...	86	760
Pelts	----------	----------	8,228
Rennet	----------	----------	31,468
Silk, raw, or as reeled from the cocoon	Pounds ...	36,149	150,959
Silk cocoons and silk waste	----------	----------	2,257
Sausage skins, and casings, not cleaned	----------	----------	5,425
Wool, unmanufactured	Pounds ...	4,166,745	592,670
Total	----------	----------	3,209,263
AGRICULTURAL PRODUCTS.			
Bamboo reeds, not further manufactured than cut in suitable lengths for walking sticks or umbrellas, and bamboos unmanufactured	----------	----------	1,277
Broom, corn	Cwts -----	1,825	121,709
FIBER:			
Mexican, fibrilla and istle, or Tampico fiber	....do ----	4,916	14,307
Other vegetable	....do ----	33	13,359
Foot grease, the refuse of the cotton seed, after the oil is pressed out	....do ----	48,373	74
Hemp, undressed	....do ----	10,703	182,997
Jute butts and jute	Pounds ...	920	17,551
Locust beans	Cwts -----	41	25
Manilla grass	....do ----	35	234
Manures, vegetable	----------	----------	24
Palm leaf, unmanufactured	----------	----------	459
Rattans and reeds, unmanufactured	----------	----------	10,025
Trees, forest, for planting	----------	----------	557
Tobacco, unmanufactured, for excise purposes	Pounds ...	13,740,208	1,604,544
Vegetable fibers, natural, not produced by any mechanical process	Cwts -----	350	666
Willow, for basket making	----------	----------	529
Total	----------	----------	1,968,337
MANUFACTURED AND PARTIALLY MANUFACTURED ARTICLES.			
Ashes, not pearl and soda	Barrels ...	311	5,120
Asphaltum	Cwts -----	1,108	2,687
Bells for churches	----------	----------	22,779
Bent glass for the manufacture of show cases	----------	----------	580
Bolting cloths, not made up	----------	----------	16,866
Books, bound, printed more than seven years at date of importation, not for trade purposes	----------	----------	12,077
Brim-molds and molds and skins for gold beaters	----------	----------	529
Braid for hat and bonnet shapes	----------	----------	728
Carpets, floor oil cloth and less than 45 inches	Yards ----	18,638	1,904
			2,434
			6,771

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

FREE GOODS—Continued.

ARTICLES.	Units.	Quantities.	Value.
MANUFACTED AND PARTIALLY MANUFACTURED ARTICLES—continued.			*Dollars.*
Colors, dry	Pounds	427,347	17,987
Diamond drills for prospecting for minerals	Number	1	1,152
DRUGS, DYES, CHEMICALS, AND MEDICINES:			
Aniline dyes in bulk, &c	Pounds	146,083	82,356
Borax	do	190,098	13,676
Brimstone, crude	do	1,572,254	17,470
Dye, jet black	do	155,987	19,495
Dyeing or tanning articles in a crude state	do	4,772,086	116,897
Extract of logwood	do	1,434,622	55,294
Gums	do	823,730	147,197
Indigo	do	66,651	37,316
Quinine, sulphate of, in powder	do	19,470	14,805
Soda, nitrate of soda, soda ash, soda caustic, sal soda, and soda silicate of	do	1,694,384	34,832
All other			94,167
Duck, for belting and hose			27,003
Fancy grasses, dried but not colored, or otherwise manufactured			242
Felt, adhesive, for sheathing vessels			15
FISHERIES, FOR THE USE OF:			
Fish hooks			1,675
Nets and seines			53,727
Lines and twines			97,168
Gas coke	Tons	989	3,473
Gutta-percha and India rubber, crude	Pounds	627,124	348,219
Hatters' plush, of silk or cotton			188
Horn strips, used in making corsets			648
Iron liquor, solution of acetate of iron, for dyeing and calico printing.			1,791
Junk, old, and oakum	Cwts	4,326	18,221
Jute-cloth, as taken from the loom, to be manufactured into bags only.	Yards	1,937	99
Kelp and sea-grass and sea-weed	Cwts	600	425
Manuscripts			142
METALS:			
Anchors	Cwts	198	1,198
Bismuth, metallic	Pounds	33	74
Brass, old, scrap and in sheet	Cwts	4,987	37,600
Britannia metal, in pigs and bars	do	176	3,795
Copper, in sheets	do	2,891	37,939
Hoop-iron	do	58	735
Iron masts for ships, or parts of			1,000
Iron and steel, old and scrap	Cwts	23,715	17,507
Iron and steel beams, sheets, &c	do	105	229
Platinum wire	do	117	1,134
Silver and German silver	Pounds	27,772	9,981
Steel railway bars	Cwts	3,772	5,485
Steel for skates	do	242	973
Steel for saws	do	2,228	21,463
Steel of No. 20 gauge and thinner	do	11	53
Steel, in sheets	do	390	1,626
Crucible sheet-steel	do	414	2,990
Spelter, in blocks and pigs	do	464	2,199
Tin, in blocks, pigs, and bars	do	4,243	81,879
Tin plates and sheets	do	31,089	124,849
Tin-foil	Pounds	59,281	10,949
Wire:			
Of brass, round or flat	do	104,167	19,914
Of copper	do	177,188	28,603
Of spring steel, coppered	do	315,765	17,699
Of iron and steel, galvanized, or tinned, or not	do	730,412	48,725
Rigging, for ships and vessels	Cwts	270	1,456
Yellow metal, in bars, bolts, and for sheathing	do	625	6,670
Zinc, in blocks, pigs, and sheets	do	1,828	8,247
Moss, sea-weed, &c., used for beds and mattresses, in their natural state	do	7,567	27,526
Newspapers and other periodical literary papers			54,226
Oil cake and meal, cotton-seed cake and meal, palm-nut cake and meal	Cwts		
Oils, cocoa-nut and palm, in their natural			
Packages not other			

No. 91.—MERCHANDISE IMPORTED from the UNITED STATES and ENTERED for CONSUMPTION in the DOMINION OF CANADA, &c., 1886—Continued.

FREE GOODS—Continued.

ARTICLES.	Units.	Quantities.	Values.
			Dollars.
MANUFACTURED AND PARTIALLY MANUFACTURED ARTICLES—cont'd.			
Rags, paper-waste, and waste of any kind fit only for manufacture of paper	Cwts	86,013	113,163
Red liquor, or crude acetate of aluminium prepared from pyroligenous acid, for dyeing and calico printing	Barrels	19,796	195
Rosin, in packages of not less than 15 gallons	Pounds	111,938	91,559
Rubber, hard, crude, in sheets, plain or molded	do	19,499	53,579
Rubber, recovered, and rubber substitute	do	39,656	1,466
Seeds, anise, coriander, fennel, and fenugreek			2,063
Spurs and stilts, used in the manufacture of earthenware			308
Teasels	M	15	1,859
Treenails	Pounds	6,556	822
Turpentine, raw or crude	Gallons	1,089	52
Varnish, black and bright, for ships' use			231
Veneers of wood and ivory, sawn only	Pounds	9,979	50,800
White shellac, for manufacturing purposes	do	932,522	1,571
Woolen rags			51,200
Total			5,353,148
MISCELLANEOUS ARTICLES.			
Anatomical preparations			504
Apparel, wearing, and other personal effects of British subjects dying abroad			2,384
Articles for the use of the governor-general and consuls-general			1,273
Articles for the use of the Dominion Government			170,788
Articles for the use of the army, navy, and the Canadian militia			19,815
Articles ex-warehoused for ships' stores			95,922
Botany, specimens of			4
Cabinet of coins, medals, and all other collections of antiquities			1,706
Casts of models for the use of schools of design			182
Clothing, donations for charitable purposes			1,642
Entomology, specimens of			262
Ice			996
Medals of gold, silver, or copper			1,640
Models of invention			18,163
Paintings, in oil or water colors, by artists of well-known merit, or copies of the old masters by such artists			125,141
Settlers' effects			1,041,029
Vaccine and ivory vaccine points			9,710
Coin and bullion, except United States silver coin			2,038,388
Articles for the use of Atlantic Telegraph Company			417
Lastings, mohair cloth, &c., for covering buttons			212
Total			3,530,178
SPECIAL EXEMPTIONS.			
For construction of Canadian Pacific Railway:			1
Bolts and nuts	Pounds	20	9,886
Iron bridges	do	239,910	8,082
Steel rails	do	704,440	1,928
Other material for bridges			1,384
Wire for telegraph lines	Pounds	206,142	1,164
For construction of Esquimalt and Nanaimo Railroad:			38,894
Bolts and nuts	do	40,802	1,500
Fish-plates	do	5,524,112	80,263
Spikes	do	50,000	4,287
Steel rails	do	2,240,000	359
Other material for bridges			
Telegraph apparatus			147,748
Total			15,198,163

No. 92.—STATEMENT showing the TOTAL VALUES of MERCHANDISE IMPORTED into the United States from the British North American Provinces, and of MERCHANDISE IMPORTED into and ENTERED FOR CONSUMPTION in the British North American Provinces from the United States, during each Year from 1850 to 1886, inclusive (see note 5).

YEARS.	Imports into the United States from the British North American Possessions.	Imports into the British North American Possessions from the United States.	Excess of imports into the United States.	Excess of imports into the British North American Possessions.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
1850	5,179,500	11,608,641	.....	6,429,141
1851	5,279,718	14,263,751	.....	8,984,033
1852	5,469,445	13,993,570	.....	8,524,125
1853	6,527,559	19,445,478	.....	12,917,919
1854	8,784,412	26,115,132	.....	17,330,720
1855	15,118,289	34,362,188	.....	19,243,899
1856	21,276,614	35,764,980	.....	14,488,366
1857	22,108,916	27,788,238	.....	5,679,322
1858	15,784,836	22,210,837	.....	6,426,001
1859	19,287,565	26,761,618	.....	7,474,053
1860	23,572,796	25,871,399	.....	2,298,603
1861	22,724,489	28,520,735	.....	5,796,246
1862	18,515,685	30,373,212	.....	11,857,527
1863	17,191,217	29,680,955	.....	12,489,738
1864	29,608,736	7,952,401	.....	.....
1865	33,264,403	27,269,158	5,995,245	.....
1866	48,528,628	27,905,984	20,622,644	.....
1867	25,044,005	25,239,459	.....	195,454
1868	26,261,378	22,644,235	3,617,143	.....
1869	29,293,766	21,680,062	7,613,704	.....
1870	36,265,328	21,869,447	14,395,881	.....
1871	32,542,137	27,185,586	5,356,551	.....
1872	36,346,930	33,741,995	2,604,935	.....
1873	37,649,532	47,223,171	.....	9,573,639
1874	34,365,961	53,430,424	.....	19,064,463
1875	28,270,926	50,319,993	.....	22,049,067
1876	29,010,251	45,502,201	.....	16,491,950
1877	24,277,378	53,524,029	.....	29,246,651
1878	25,357,802	50,324,123	.....	24,966,321
1879	26,133,554	45,196,601	.....	19,063,047
1880	33,214,340	41,926,563	.....	8,712,223
1881	38,041,947	50,955,925	.....	12,913,978
1882	51,113,475	55,270,580	.....	4,157,105
1883	44,740,876	65,018,933	.....	20,278,057
1884	39,015,840	59,845,968	.....	20,830,128
1885	36,960,541	53,397,608	.....	16,437,067
1886	37,496,338	49,773,232	.....	12,276,894

NOTES.

1. All of the above data are given for years ending June 30, except that the imports into the British provinces from 1850 to 1863 are for calendar years, and those for 1864 are for the six months ending June 30.

2. The imports into the British provinces from 1850 to 1867 comprise the imports into the provinces of Quebec and Ontario, as taken from the Canadian accounts, plus the exports to the other provinces of the present Dominion, as taken from the United States accounts; the imports into the British provinces for the remaining years are taken exclusively from the Canadian accounts, with the following additions from the United States accounts, viz: 1868, exports to British Columbia, $1,178,813; 1869, exports from Minnesota, $182,682; 1870, exports from Minnesota, $172,210; 1873 to 1886, exports from the United States to Newfoundland and Labrador. The accounts of these exports, which were exclusively by water, are reliable.

3. The imports into the United States for 1864 and from 1868 to 1886 include the imports from all British North American Possessions.

4. For the gradual formation of the present Dominion of Canada see Statement No. 93.

5. The imports into the British North American provinces from 1850 to include 1875 are the imports entered for consumption, and those from 1876 to 1885, inclusive, are the general imports of merchandise.

No. 93.—STATEMENT showing the TOTAL VALUES of MERCHANDISE IMPORTED from the UNITED STATES into and entered for CONSUMPTION in the several Provinces of the DOMINION of CANADA, from its formation until its present composition, during each Year ending June 30, from 1868 to 1874, inclusive.

[From the "Trade and Navigation of the Dominion of Canada."]

PROVINCES.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Ontario	17,605,405	10,728,023	11,161,547	13,670,781	18,143,986	26,500,791	29,486,987
Quebec		6,054,633	6,454,291	8,828,539	8,604,746	11,245,303	12,675,992
Nova Scotia	2,640,887	2,560,023	2,258,079	2,250,764	2,991,835	2,950,779	3,323,114
New Brunswick	1,219,130	2,154,701	1,823,320	2,323,339	2,599,811	2,970,054	3,894,484
Manitoba	----------	----------	----------	112,163	321,658	441,559	781,277
British Columbia	----------	----------	----------	----------	1,079,959	1,080,624	1,228,497
Prince Edward Island	----------	----------	----------	----------	----------	----------	394,803
Dominion of Canada	21,465,422	21,497,380	21,697,237	27,185,586	33,741,995	45,189,110	51,785,154

No. 94.—STATEMENT showing, by PROVINCES, the Value of MERCHANDISE IMPORTED from the United States into the Dominion of Canada and entered for CONSUMPTION, with the amounts of Duty collected, during each of the Years ending June 30, from 1875 to 1886, inclusive, with the average ad valorem rates of duty and the percentages of free and dutiable merchandise.

[From the "Trade and Navigation of the Dominion of Canada."]

YEARS AND PROVINCES.	TOTAL VALUE ENTERED FOR CONSUMPTION.			Duties collected.	AVERAGE AD VALOREM RATES OF DUTY ON—		PERCENTAGE OF TOTAL VALUE.	
	Free.	Dutiable.	Total.		Dutiable.	Free and dutiable.	Free.	Dutiable.
1875.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Per ct.*	*Per ct.*		
Ontario	14,013,396	10,679,477	24,692,873	1,844,579 73				
Quebec	8,114,097	6,315,502	14,429,599	1,097,974 93				
Nova Scotia	1,997,224	1,447,173	3,444,397	241,232 37				
New Brunswick	1,875,154	1,820,596	3,695,750	330,695 13				
British Columbia	262,540	988,431	1,250,971	195,416 50				
Manitoba	246,026	536,258	782,284	86,674 38				
Prince Edward Island	109,375	236,228	345,603	50,295 73				
Total	26,617,812	22,023,665	48,641,477	3,846,868 77	17.47	7.91	54.72	45.28
1876.								
Ontario	13,349,814	10,913,454	24,263,268	2,128,542 48				
Quebec	5,751,163	5,560,656	11,311,819	1,025,859 96				
Nova Scotia	1,804,168	1,294,650	3,098,818	234,517 65				
New Brunswick	1,086,391	1,539,586	2,625,977	309,237 87				
Manitoba	377,850	562,161	940,011	106,279 10				
British Columbia	290,772	1,229,140	1,519,912	245,966 93				
Prince Edward Island	105,109	232,858	337,967	49,708 90				
Total	22,765,267	21,332,505	44,097,772	4,100,112 89	19.22	9.30	51.62	48.38

No. 93.—IMPORTS from the UNITED STATES into the DOMINION of CANADA entered for CONSUMPTION, &c., 1875 to 1886—Continued.

YEARS AND PROVINCES.	TOTAL VALUE ENTERED FOR CONSUMPTION.			Duties collected.	AVERAGE AD VALOREM RATES OF DUTY ON—		PERCENTAGE OF TOTAL VALUE.	
	Free.	Dutiable.	Total.		Dutiable.	Free and dutiable.	Free.	Dutiable.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Per ct.*	*Per ct.*		
1878.								
Ontario	15,365,626	10,777,509	26,143,135	2,246,795 45				
Quebec	5,946,805	5,678,239	11,625,044	1,192,945 25				
Nova Scotia	1,497,053	1,694,703	3,191,756	314,744 14				
New Brunswick	1,172,374	3,041,402	4,213,776	576,620 23				
Manitoba	110,145	636,952	747,097	140,118 15				
British Columbia	334,695	1,207,925	1,542,620	241,825 32				
Prince Edward Island	109,128	303,543	412,671	56,384 97				
Northwest Territories	.....	112,307	112,307	19,078 15				
Total	24,535,826	23,452,580	47,988,406	4,788,511 66	20.42	9.98	51.13	48.87
1879.								
Ontario	11,144,931	11,752,392	22,897,323	2,745,099 35				
Quebec	4,730,542	6,158,792	10,889,334	1,500,793 67				
Nova Scotia	1,231,629	1,691,981	2,923,610	349,087 40				
New Brunswick	805,396	1,791,049	2,596,445	395,293 81				
Manitoba	52,954	783,218	836,172	185,377 12				
British Columbia	288,072	1,160,605	1,448,677	258,147 89				
Prince Edward Island	85,095	226,090	311,185	49,849 39				
Northwest Territories	28,230	129,232	157,462	24,828 63				
Total	18,366,849	23,693,359	42,060,208	5,508,477 26	23.25	13.10	43.67	56.33
1880.								
Ontario	4,070,464	10,062,620	14,133,084	2,289,991 52				
Quebec	3,547,164	4,503,678	8,050,842	1,114,997 91				
Nova Scotia	409,246	1,528,150	1,937,396	299,971 40				
New Brunswick	398,311	1,313,329	1,711,640	275,730 42				
Manitoba	63,218	784,040	847,258	195,762 51				
British Columbia	106,054	1,088,528	1,194,582	275,154 87				
Prince Edward Island	32,669	168,672	201,341	38,950 24				
Northwest Territories	90	117,550	117,640	21,856 38				
Total	8,627,216	19,566,567	28,193,783	4,512,415 25	23.06	16.00	30.60	69.40
1881.								
Ontario	4,968,069	12,444,261	17,412,330	2,699,999 46				
Quebec	4,391,779	6,580,380	10,972,159	1,512,061 59				
Nova Scotia	400,068	1,795,120	2,195,188	354,132 59				
New Brunswick	600,283	1,650,377	2,250,660	344,121 21				
Manitoba	103,901	1,381,698	1,485,599	315,270 27				
British Columbia	205,949	1,408,490	1,614,439	343,628 74				
Prince Edward Island	34,776	189,751	224,527	45,689 15				
Northwest Territories	1,563	182,236	183,799	34,248 88				
Total	10,706,388	25,632,313	36,338,701	5,649,151 89	22.04	15.55	29.46	70.54
1882.								
Ontario	6,087,528	15,098,924	21,186,452	3,143,505 91				
Quebec	5,412,902	8,633,031	14,045,933	1,882,543 85				
Nova Scotia	483,167	1,751,284	2,234,451	345,402 05				
New Brunswick	789,603	1,933,915	2,723,518	412,003 55				
Manitoba	864,410	3,532,038	4,396,478	825,040 89				
British Columbia	302,052	1,544,887	1,846,939	376,042 26				
Prince Edward Island	32,607	152,907	185,514	37,618 70				
Northwest Territories	139,575	294,075	433,650	51,755 28				
Total	14,111,874	32,941,061	47,052,935	7,073,912 49	21.47	15.03	29.99	70.01
1883.								
Ontario	6,664,088	17,234,091	23,898,179	3,490,335 05				
Quebec	5,609,949	[illegible]	[illegible]	[illegible]				

No. 94.—IMPORTS from the UNITED STATES into the DOMINION of CANADA entered for CONSUMPTION, &c., 1875 to 1886—Continued.

YEAR AND PROVINCES.	TOTAL VALUE ENTERED FOR CONSUMPTION.			Duties collected.	AVERAGE AD VALOREM RATES OF DUTY ON—		PERCENTAGE OF TOTAL VALUE.	
	Free.	Dutiable.	Total.		Dutiable.	Free and dutiable.	Free.	Dutiable.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Per ct.*	*Per ct.*		
1884.								
Ontario	5,791,798	18,014,092	23,805,890	3,617,647 74				
Quebec	4,943,302	8,785,793	13,729,095	1,815,599 34				
Nova Scotia	754,587	2,203,152	2,957,739	439,038 80				
New Brunswick	1,048,515	2,049,774	3,098,289	452,629 92				
Manitoba	970,160	2,170,520	3,140,680	494,748 53				
British Columbia	246,902	2,060,710	2,307,612	480,181 44				
Prince Edward Island	79,906	179,938	259,844	41,952 44				
Northwest Territories	154,021	332,718	486,739	70,148 16				
Total	13,989,191	35,796,697	49,785,888	7,411,946 37	27.06	14.89	28.10	71.90
1885.								
Ontario	6,571,225	15,802,811	22,374,036	3,192,070 25				
Quebec	6,565,053	7,798,697	14,363,750	1,613,847 85				
Nova Scotia	753,268	1,868,180	2,621,448	399,138 15				
New Brunswick	977,997	1,821,443	2,799,440	433,913 14				
Manitoba	466,727	1,524,543	1,991,270	374,059 65				
British Columbia	228,869	2,152,167	2,381,036	547,233 04				
Prince Edward Island	49,928	180,091	230,019	45,933 30				
Northwest Territories	306,187	84,015	390,202	17,905 01				
Total	15,919,254	31,231,947	47,151,201	6,624,100 39	21.21	14.05	33.76	66.24
1886.								
Ontario	5,870,328	15,457,979	21,328,307	3,288,457 20				
Quebec	6,707,868	7,733,975	14,441,843	1,759,820 60				
Nova Scotia	629,428	1,587,980	2,217,408	430,647 34				
New Brunswick	1,162,619	1,816,146	2,978,765	464,808 69				
Manitoba	244,614	1,031,094	1,275,708	284,339 56				
British Columbia	441,018	1,812,424	2,253,442	477,206 58				
Prince Edward Island	53,539	126,236	179,775	44,441 22				
Northwest Territories	88,749	94,042	182,791	19,633 50				
Total	15,198,163	29,659,876	44,858,039	6,769,354 69	22.82	15.09	33.88	66.12

RECAPITULATION.

1875	26,617,812	22,023,665	48,641,477	3,846,868 77	17.47	7.91	54.72	45.28
1876	22,765,267	21,332,505	44,097,772	4,100,112 89	19.22	9.30	51.62	48.38
1877	25,865,167	23,510,998	49,376,165	4,388,737 35	18.67	8.89	52.38	47.62
1878	24,535,826	23,452,580	47,988,406	4,788,511 66	20.42	9.98	51.13	48.87
1879	18,366,849	23,693,359	42,060,208	5,508,477 26	23.25	13.10	43.67	56.33
1880	8,627,216	19,666,567	28,193,783	4,512,415 25	23.06	16.00	30.60	69.40
1881	10,706,388	25,632,313	36,338,701	5,649,151 89	22.04	15.55	29.46	70.54
1882	14,111,874	32,941,061	47,052,935	7,073,912 49	21.47	15.03	29.99	70.01
1883	16,495,198	38,652,045	55,147,243	8,148,267 67	21.08	14.78	29.91	70.09
1884	13,989,191	35,796,697	49,785,888	7,411,946 37	27.06	14.89	28.10	71.90
1885	15,919,254	31,231,947	47,151,201	6,624,100 39	21.21	14.05	33.76	66.24
1886	15,198,163	29,659,876	44,858,039	6,769,354 69	22.82	15.09	33.88	66.12

STATEMENT showing the QUANTITIES and VALUES of the Principal and other COMMODITIES IMPORTED into DOMINION OF CANADA from the United States, taken from the Canadian accounts, as compared with the Domic and Foreign EXPORTS from the UNITED STATES to the Dominion of Canada, taken from the United States nts, for the Year ending June 30, 1886.

[Abbreviation: n. e. s., not elsewhere specified.]

ARTICLES.		Imports into the Dominion of Canada from the United States, taken from Canadian accounts.		Exports from the United States to the Dominion of Canada, taken from United States accounts.		Excess of imports according to Canadian accounts.		Excess of exports according to United States accounts.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
IPLEMENTS:			*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*
			1, 179		675		504		
eapers, and parts of			27, 626		3, 113		24, 513		
tivators, and parts of			6, 940		5, 540		1, 400		
parts of			104, 657		112, 164				7, 507
	No.	3, 798	167, 047	441	18, 749	3, 357	148, 298		
	No.	59, 979	519, 705	66, 858	617, 152			6, 879	97, 447
	No.	3, 032	270, 539	661	106, 565	2, 371	163, 974		
	No.			31	2, 690			31	2. 690
fowl	No.	32, 984	68, 350	25, 310	54, 462	7, 674	13, 888		
ngs and statuary			19, 545		8, 514		11, 031		
f, for tanning			172, 792		10, 118		162, 674		
bles and apparatus			10, 945		297		10, 648		
			3, 017		1, 913		1, 104		
and horn tips, strips, and waste			36, 345		14, 485		21, 860		
vings, and other printed matter			8, 696		1, 790		6, 906		
tures of			798, 416		120, 673		677, 743		
			298, 760		44, 506		254, 254		
it	bush.	8, 134	5, 497	31, 637	22, 973				
	lbs.	487, 676	22, 855	434, 505	19, 651	53, 171	3, 204	23, 503	17, 476
	bush.	4, 528, 878	2, 242, 348	5, 461, 389	2, 308, 135				
	bbls.	125, 106	300, 895	117, 896	310, 575	7, 210		932, 511	65, 787
	bush.	219, 976	73, 320	239, 302	70, 231				9, 680
	lbs.	183, 946	5, 909	6, 887, 845	139, 357		3, 089	19, 326	
	bush.	18	15					6, 703, 899	133, 448
	bbls.	116	482	44	170	18	15		
	bush.	2, 373, 207	2, 229, 758	2, 507, 495	2, 069, 000	72	312		
							160, 708	134, 288	

SE IMPORTED into the DOMINION of CANADA from the UNITED STATES (CANADIAN ACCOUNTS), compared to the DOMINION of CANADA from the UNITED STATES (UNITED STATES ACCOUNTS), 1886—Continued.

ARTICLES.		Imports into the Dominion of Canada from the United States, taken from Canadian accounts.		Exports from the United States to the Dominion of Canada, taken from United States accounts.		Excess of imports according to Canadian accounts.		Excess of exports according to United States accounts.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
			Dollars.		*Dollars.*		*Dollars.*		*Dollars.*
	bbls.	213,439	834,156	383,092	1,688,356			169,653	854,200
			79,196		171,904				92,708
and preparations of, used as food									
	M.	813	4,158	1,307	5,100		4,636		
			36,251		31,615		38,618		
			121,709		83,091		7,898		
			39,972		32,074	29,791	5,691		
			14,028	78,866	8,337		11,599		
	lbs.	108,657	150,269		138,670		15,632		
			216,825		201,193		7,516		
			13,921		6,405			494	942
and parts of									
ght, for steam railroads			32,043		7,106		24,937		
			5,407	2,250	116	522,293	5,291		
AND MEDICINES:			336,834		60,986		275,848		
	lbs.	524,543	162,189		10,502		151,687		
			7,494		982		6,512		
			662,816		247,557		415,259		
proprietary									
rks, n. e. s			107,107		25,346		81,761		
			280,468		14,550		265,918		
f									
				642,531	2,564,340	377,344	1,531,626		
of	tons.	1,019,875	4,095,966	298,688	751,953	585,160	1,775,854		
	tons.	883,848	2,527,807	278,093	26,738	648,473	69,885		
	lbs.	926,566	96,623		18,061		16,910		
			34,971					21	4,680
				21	4,680		3,065		
id or prepared, and chocolate				2,000	200	422,816	32,941		
	tons.	424,816	31,265	28,914	4,998	294,878	48,195		
TURES OF:	lbs.	323,792	37,939		21,882				
	lbs.		70,077						
old									
tures of				18,712,718	1,882,273	10,996,336	1,009,017		
CTURES OF:	lbs.	29,709,054	2,891,290		821,664		376,658		
			1,198,322						

NE, AND CHINA WARE:								
nd stone ware		70,819		68,485		2,334		
e		9,372		9,136		236		
doz.	264,167	44,261	208,079	36,220	56,088	8,041		
ES:								
y and cosmetics		35,636		9,735		25,901		
		34,800		5,061		29,739		
		329,173		85,504		243,669		
tons		4,816		8,117				3,301
ried, smoked, and cured, including haddock, hake, and pol-								
lbs.	580,266	29,151	93,291	4,283	486,975	24,868		
pickled bbls.	273	1,427	536	2,776			263	1,349
l		571		24,031				23,460
		1,825		404		1,421		
, n. e. s lbs.	2,094,480	60,675	853,386	26,205	1,241,094	34,470		
, smoked, and cured, n. e. s lbs.	1,918,277	48,870	597,977	27,948	1,320,300	20,922		
ed, n. e. s bbls.	1,105	3,485	1,230	5,939			125	2,454
		272,971		105,323		167,648		
		3,125		25,262				22,137
er		22,476		966		21,510		
D JUTE, MANUFACTURES OF:								
				11,354				11,354
lbs.	742,500	73,688	284,834	29,999	457,666	43,689		
		166,056		38,497		127,559		
		261,382		66,863		194,519		
d lbs.	223,934	11,834	108,403	4,651	115,531	7,183		
n or ripe bbls.	31,575	63,775	13,898	28,744	17,677	35,031		
rved—								
		34,495		42,612				8,117
		2,647		15,753				13,106
en, ripe, or dried		525,348		295,421		229,927		
		366,317		128,182		238,135		
WARE:								
s		9,257		823		8,434		
		282,419		260,155		22,264		
sugar lbs.	823,202	24,327	74,061	2,078	749,141	22,249		
lbs.	443,311	48,873	121,245	17,862	322,066	31,011		
aps, and all soap-stock		154,473		141,591		12,882		
OTHER EXPLOSIVES:								
lbs.	34,674	4,496	47,520	6,852			12,846	2,356
		33,741		56,683				22,942
tures of		51,991		10,736		41,255		
tons	814	6,697	423	3,646	391	3,051		
ther than furs		1,658,769		368,968		1,289,801		
		1,905		1,634		271		
lbs.	203,098	27,578	161,840	16,843	41,258	10,735		
		996		830		166		

ISE IMPORTED into the DOMINION of CANADA from the UNITED STATES (CANADIAN ACCOUNTS), compare
S to the DOMINION of CANADA from the UNITED STATES (UNITED STATES ACCOUNTS), 1886—Continued.

ARTICLES.		Imports into the Dominion of Canada from the United States, taken from Canadian accounts.		Exports from the United States to the Dominion of Canada, taken from United States accounts.		Excess of imports according to Canadian accounts.		Excess of exports according to United States accounts.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
			Dollars.		*Dollars.*		*Dollars.*		*Dollars.*
A-PERCHA, MANUFACTURES OF:	lbs..	758,561	403,264	.....	.....	758,561	403,264	.....	.....
.....	.....	.....	192,671	.....	38,705	.....	153,966	.....	.....
.....	.....	.....	307,758	.....	100,470	.....	207,288	.....	.....
.....	.....	.....	54,962	.....	11,929	.....	43,033	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
tus for scientific purposes, including telegraph,	.....	.....	106,641	.....	21,061	.....	85,580	.....	.....
lectric	.....	.....	.....	561	1,122	.....	.....	561	1,122
ANUFACTURES OF:	tons..	11,242	216,957	7,268	137,839	3,974	79,118	.....	.....
.....	tons..	428,064	12,053	20,979	1,540	407,085	10,513	.....	.....
.....	lbs..	1,400,000	28,097	368,792	8,819	1,031,208	19,278	.....	.....
.....	lbs..	.....	5,734	.....	1,201	.....	4,533	.....	.....
oll iron	.....	.....	240,152	.....	91,977	.....	148,175	.....	.....
.....	.....	.....	44,840	.....	3,593	.....	41,247	.....	.....
.....	.....	.....	55,643	.....	21,467	.....	34,176	.....	.....
.....	.....	.....	73,663	108,858	4,379	2,169,558	69,284	.....	.....
.....	bls..	2,278,416	558,378	.....	315,957	.....	242,421	.....	.....
.....	.....	.....	923,805	.....	369,533	.....	554,272	.....	.....
ods of steel	.....	.....	16,417	235,639	7,547	174,584	8,870	.....	.....
other builders' hardware	lbs..	410,223	.....	.....	71,375	3,046,989	95,207	.....	.....
.....	.....	.....	166,582	2,040,939	161	608,482	26,946	.....	.....
.....	lbs..	5,087,928	27,107	806	19,768	.....	57,610	.....	.....
.....	lbs..	609,288	77,378	.....	.....	.....	.....	64	23,233
.....	.....	.....	.....	.....	2,745	.....	1,359	962	.....
.....	.....	.....	4,104	98	117,063	.....	.....	.....	.....
And parts of	tons..	34	93,830	2,460	29,122	.....	219,498	.....	.....
ails—	tons..	1,498	248,620	.....	24,831	.....	416	.....	.....
.....	.....	.....	25,247	.....	108,245	.....	38,218	.....	.....
.....	.....	.....	146,463	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	3	3,442	.....	.....
ces	.....	3	3,442	.....	39,872	19	136,464	.....	.....
, and parts of	No..	26	176,336	7	800	6	6,141	.....	.....
nd parts of—	No..	9	6,941	3	5,926	.....	19,314	.....	.....
.....	No..	.....	25,240	.....	13,813	.....	8,757	.....	.....
engines	.....	.....	22,570	.....	.....	.....	.....	.....	.....
ngines	.....	.....	.....	.....	.....	.....	.....	.....	.....
parts of engines	.....	.....	.....	.....	.....	.....	.....	.....	.....
ges, and parts of	.....	.....	.....	.....	.....	.....	.....	.....	.....

.....lbs..	3,193,590	128,116	256,859	12,082	2,936,731	116,034	.....	.....
anufactures of iron and steel.....	.....	736,824	.....	484,197	.....	252,627	.....	.....
anufactures of gold and silver.....	.....	345,492	.....	88,901	.....	256,591	.....	.....
liers, and all devices and appliances for illuminating purposes.	.....	190,582	.....	26,878	.....	163,704	.....	.....
ufactures of.....	.....	14,303	.....	13,096	.....	1,207	.....	.....
MANUFACTURES OF:								
rain, splits, and all finished upper-leather.....	.....	131,439	.....	44,481	.....	96,958	.....	.....
or enameled.....	.....	14,465	.....	.....	.....	14,465	.....	.....
.....lbs..	803,175	195,500	19,019	5,017	784,156	190,483	.....	.....
er.....	.....	176,730	.....	112,371	.....	64,359	.....	.....
res of—								
nd shoes.....pairs..	171,288	164,991	29,028	49,471	142,260	115,520	.....	.....
s and saddles.....	.....	27,983	.....	49,339	.....	.....	.....	21,356
er.....	.....	136,311	.....	70,545	.....	65,766	.....	.....
nt.....	.....	24,866	.....	26,852	.....	.....	.....	1,986
:								
.....doz..	3,721	6,868	5,938	8,978	.....	.....	2,217	2,110
les.....galls..	116,493	23,500	130,261	33,407	.....	.....	13,768	9,907
TONE, AND MANUFACTURES OF:								
tured.....		126,923	.....	139,314	.....	.....	.....	12,391
es of—								
slate.....	.....	1,798	.....	2,406	.....	.....	.....	608
f.....	.....	90,684	.....	87,772	.....	2,912	.....	.....
.....	.....	.....	.....	555	.....	.....	.....	555
MENTS:								
.....No..	360	21,053	255	24,747	105	.....	.....	3,694
.....No..	1,010	233,479	536	147,987	474	85,492	.....	.....
d parts of.....	.....	83,801	.....	12,896	.....	70,905	.....	.....
.....bbls..	19,796	91,559	16,470	29,336	3,326	62,223	.....	.....
ne, and pitch.....bbls..	4,481	9,412	10,028	28,530	.....	.....	5,547	19,118
.....lbs..	484,512	18,221	98,432	5,170	386,080	3,051	.....	.....
ke meal.....lbs..	1,270,640	14,120	430,132	7,663	840,508	6,457	.....	.....
.....galls..	22,625	12,009	23,432	10,909	.....	1,100	807	.....
.....galls..	.....	.....	61	32	.....	.....	61	32
sh.....galls..	27,708	10,792	12,399	10,035	15,309	757	.....	.....
.....galls..	13,392	6,468	4,968	1,470	8,424	4,998	.....	.....
(including all natural oils, without regard to gravity.galls..	.....	.....	202	20	.....	.....	202	20
d or manufactured—								
g.....galls..	4,208,794	481,104	3,316,249	382,755	892,545	98,349	.....	.....
g and heavy paraffine oil.....galls..	451,859	131,694	384,697	96,921	67,162	34,773	.....	.....
(including tar, and all other, from which the light bodies n distilled.....bbls..	.....	.....	53	198	.....	.....	53	198
.....galls..	.....	.....	948	361	.....	.....	948	361
.....galls..	22,506	9,058	7,335	3,458	15,171	5,600	.....	.....
essential.....	.....	30,564	.....	1,255	.....	29,309	.....	.....
.....	.....	103,489	.....	15,689	.....	87,800	.....	.....
' colors.....	.....	163,300	.....	53,258	.....	110,042	.....	.....

ISE IMPORTED into the DOMINION of CANADA from the UNITED STATES (CANADIAN ACCOUNTS), compared
s to the DOMINION OF CANADA from the UNITED STATES (UNITED STATES ACCOUNTS,) 1886—Continued.

ARTICLES.		Imports into the Dominion of Canada from the United States, taken from Canadian accounts.		Exports from the United States to the Dominion of Canada, taken from United States accounts.		Excess of imports according to Canadian accounts.		Excess of exports according to United States accounts.	
		Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
			Dollars.		*Dollars.*		*Dollars.*		*Dollars.*
			199,690		28,082		171,608		20,752
					20,752				
			440,417		104,727		335,690		
ES OF:									
			7,675		227	59,312	7,448		
velopes	lbs.	61,187	137,762	1,875	20,048		117,714		
									46,567
ax									200,982
					97,257			2,148,880	1,351,439
meat and dairy products):			50,690		200,716			22,560,789	3,912
			634	2,158,811	1,462,492			43,319	
	lbs.	9,931	111,053	24,973,118	3,912		2,244		
	lbs.	2,412,329		43,319	4,652	11,868	391	2,387	
	lbs.		6,896	117,203	6,745			38,564	4,535
or pickled	lbs.	129,071	7,136	141,506					
cured	lbs.	139,119			4,535			3,624,453	310,670
				38,564					
	lbs.			7,191,384	595,657		3,030		838,935
			284,987	68,696	3,781	91,004		11,084,405	239,675
utter	lbs.	3,566,931	6,811	26,957,032	1,552,714			3,996,346	
	lbs.	159,700	713,779	7,855,391	495,460		8,700		
hams	lbs.	15,872,627	255,785		3,918		2,674		
	lbs.	3,859,045	12,618		20,001			883,334	118,433
d or cured			22,675					1,323,095	123,003
					325,467				9,277
ame			207,034	2,132,424	655,653				
ducts	lbs.	1,249,090	532,650	8,374,567	9,277		2,257		
	lbs.	7,051,472			3,666	2,161	141,241		
				8,509	23,122	8,977,238	4,234		
	lbs.	10,670	5,923	1,588,740	12,516	26,410	7,570		
	lbs.	10,565,978	161,363	625,805	6,446	4,407,751		1,431,462	141,132
	lbs.	652,215	16,750	1,904,798				2,649,709	109,584
	lbs.	6,312,549	14,016		141,132				
				1,431,462	109,584		232,863		
	lbs.			2,649,709	97,596				
	lbs.		330,459						

ures of		122, 602		17, 114		105, 488		
ncy		47, 067		13, 388		33, 679		
lbs.	872, 871	59, 096	454, 106	23, 250	418, 765	35, 846		
and unground		84, 946		9, 761		75, 185		
proof galls.			20	48			20	48
proof galls.	16, 382	5, 011	22, 834	9, 074			6, 452	4, 063
proof galls.	14, 715	15, 312	12, 981	11, 414	1, 734	3, 898		
proof galls.	16, 288	16, 480	11, 244	13, 175	5, 044	3, 305		
ntine galls.	350, 995	147, 225	93, 573	34, 848	257, 422	112, 377		
lbs.	343, 222	17, 948	72, 687	4, 004	270, 535	13, 944		
pt of paper		38, 811		27, 548		11, 263		
electrotype plates				1, 925				1, 925
-leaf, manufactures of		240, 594		6, 731		233, 863		
ASSES:								
d sirup galls.	85, 092	12, 534	141, 277	31, 732			56, 185	19, 198
n lbs.	8, 444, 013	244, 464	10, 604, 224	283, 421			2, 160, 211	38, 957
ed lbs.	1, 989, 028	116, 118	3, 030, 353	187, 479			1, 041, 325	71, 361
onfectionery		51, 571		12, 369		39, 202		
lbs.	2, 042, 114	347, 932	2, 733, 761	462, 849			691, 647	114, 917
ctures of		201, 478		67, 855		133, 623		
ANUFACTURES OF:								
lbs.	15, 031, 376	1, 651, 162	8, 832, 399	1, 597, 111	6, 198, 977	54, 051		
igarettes		50, 690		23, 817		26, 873		
nufactures of		64, 001		46, 679		17, 322		
and traveling-bags		49, 834		8, 366		41, 468		
ols, and sunshades		3, 366		8		3, 358		
galls.	42, 060	77, 483	9, 476	11, 868	32, 584	65, 615		
bush.			8, 567	6, 734			8, 567	6, 734
ns bush.	10, 815	13, 908	11, 984	10, 170	3, 738	1, 169		
bush.	58, 307	26, 709	43, 872	16, 754	14, 435	9, 955		
anned		24, 454		14, 172		10, 282		
uding pickles		119, 536		67, 350		52, 186		
eigners:								
tons.		a 39, 773		1, 390		38, 383		
galls.	7, 268	1, 469	5, 341	1, 027	1, 927	442		
lbs.		15, 467		1, 287		14, 180		
lbs.	1, 456	3, 077			1, 456	3, 077		
doz.	1, 041	12, 168	813	8, 920	228	3, 248		
galls.	10, 385	12, 046	14, 659	12, 059			4, 274	13
ACTURES OF:								
cords.	1, 373	5, 577	2, 677	8, 342			1, 304	2, 765
ls, and planks M feet.	8, 128	299, 593	25, 401	536, 736			17, 273	237, 143
scantling M feet.			374	4, 430			374	4, 430
hoop-poles				45				45
M.			617	810			617	810
kets, and bed-slats M.			13	109			13	109
M.	12, 497	15, 155	10, 819	14, 299	1, 678	856		

DISE IMPORTED into the DOMINION of CANADA from the UNITED STATES (CANADIAN ACCOUNTS), compared RTS to the DOMINION of CANADA from the UNITED STATES (UNITED STATES ACCOUNTS), 1886—Continued.

ARTICLES.	Imports into the Dominion of Canada from the United States, taken from Canadian accounts.		Exports from the United States to the Dominion of Canada, taken from United States accounts.		Excess of imports according to Canadian accounts.		Excess of exports according to United States accounts.	
	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
		Dollars.		*Dollars.*		*Dollars.*		*Dollars.*
RES OF—continued.				44				44
d.				39,521				39,521
				26,706		414,177		
		440,883					7,410	154,151
				154,151			1,299,314	362,145
dings			7,410	362,145		402,390		
er M feet			1,299,314	102,637				16,215
cubic feet		505,027						
				16,215		9,315		
r timber				11,174		134,857		247,179
		20,489		7,989				
d blinds		142,846		412,099		3,098		
mings, and other house-finishings		164,920		27,643		345,138		
l barrels, empty		30,741		233,660			1,492,832	299,136
niture		578,798						
				896,528		7,040		
		597,392	5,716,064	2,131	15,042	3		160,346
TURES OF: lbs	4,223,232	9,171	1,902	1,978				34,599
yards	16,944	1,981		195,660				
		35,314		158,383				
		123,784				4,170		
kets				6,276	167,335	1,066		
		10,446	89,369	5,163				
ctures of lbs	256,704	6,229				638,053		
URES OF:				284,814		2,236,293		
s, and sheets		922,867		347,719				
ictures of		2,584,012						
LSEWHERE ENUMERATED:						14,988,211		
d articles		48,451,011		33,462,800		902,814		
rticles		2,039,664		1,136,850				
MERCHANDISE						15,891,025		
OF GOLD AND SILVER COIN AND BULLION		50,490,675		34,599,650				
OF MERCHANDISE, COIN, AND BULLION								

a Including repairs on.

No. 96.—STATEMENT showing the movement of GOLD and SILVER COIN and BULLION between the UNITED STATES and the DOMINION of CANADA during each Year ending June 30, 1883, 1884, 1885, and 1886, as shown by the Canadian and the United States accounts of imports and exports.

COIN AND BULLION.	IMPORTS FROM CANADA.		EXPORTS TO CANADA.	
	Per Canadian accounts of exports.	Per United States accounts of imports.	Per Canadian accounts of imports.	Per United States accounts of exports.
1883.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Gold:				
Coin	631,600	3,700,779	885,138	1,640,000
Bullion		567,412		.....
Silver:				
Coin		.....		.....
Bullion		11,575		3,130
Total	631,600	4,279,566	885,138	1,643,130
In cars, &c	(*)	3,639,562	(*)	1,643,130
1884.				
Gold:				
Coin	2,183,702	2,079,790	706,938	700,000
Bullion		616,403		.....
Silver:				
Coin		390		607
Bullion		.....		.....
Total	2,183,702	2,696,583	706,938	700,607
In cars, &c	(*)	2,066,800	(*)	700,000
1885.				
Gold:				
Coin	2,021,266	491,578	1,574,691	575,000
Bullion		584,082		.....
Silver:				
Coin		20		3,600
Bullion		.....		.....
Total	2,021,266	1,075,680	1,574,691	578,600
In cars, &c	(*)	480,193	(*)	578,500
1885.				
Total:				
Province of Ontario	2,018,266	456,243	201,429	578,600
Province of Quebec	.....		1,373,029	.....
Province of Manitoba	3,000	23,950	233	.....
Province of Nova Scotia	.....		.....	.....
Province of New Brunswick	.....	595,487	.....	.....
Province of British Columbia	.....		.....	.....
	2,021,266	1,075,680	1,574,691	578,600
1886.				
Gold:				
Coin	50,100	107,124		1,130,000
Bullion		687,705		.....
Silver:				
Coin				
Bullion				

No. 96.—MOVEMENT of GOLD and SILVER COIN and BULLION between the UNITED STATES and the DOMINION of CANADA, &c., 1883 to 1886—Continued.

COIN AND BULLION.	IMPORTS FROM CANADA.		EXPORTS TO CANADA.	
	Per Canadian accounts of exports.	Per United States accounts of imports,	Per Canadian accounts of imports.	Per United States accounts of exports.
1886.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Total:	100	16,718	239,220	1,136,850
Province of Ontario			1,790,332	
Province of Quebec			100	
Province of Manitoba	50,000	168,550	12	
Province of Nova Scotia			10,000	
Province of New Brunswick		619,504		
Province of British Columbia				
	50,100	804,772	2,039,664	1,136,850

See also tables Nos. 52, 55, 56, 57, 67, 68, and 69 in this Quarterly, No. 2, 1886–'87, for information relating to the Dominion of Canada.

Wm. F. Switzler.

Chief of Bureau

TREASURY DEPARTMENT,
Bureau of Statistics, March 9, 1887.

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FROM THE

CONSULS OF THE UNITED STATES.

No. 78.—MAY, 1887.

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ON

COMMERCE, MANUFACTURES, ETC.

No. 78.—May, 1887.

COAL MINES OF NEW SOUTH WALES.

REPORT OF CONSUL GRIFFIN.

The coal mines of New South Wales are by far the most important in the southern hemisphere. The mineral is of such excellent quality and the seams are so extensive and easily worked that we may well stand amazed at the promise of their future. The total area covered by the seams is estimated at 23,950 square miles. They extend from the twenty-ninth to the thirty-sixth parallel of south latitude and penetrate to the water's edge along many miles of the sea-coast. Mr. Keene, the late examiner of the coal-fields of this colony, traced the seams 700 miles north of the deposits near Newcastle, and found them covered and underlaid with the same fossil flora and fauna characteristic of the Newcastle district. He is fully satisfied that these deposits are amongst the most extensive and valuable in the world. In fact, some of the highest authorities on minerals, both in England and Australia, are very decided in the opinion that the New South Wales coal in many respects is superior to English coal, inasmuch as it is better adapted to steam purposes and richer in gas-giving properties. The lower beds of the coal series of this colony are said by geologists to be older than any worked in Europe, and the upper beds represent the most recent of the European true Carboniferous formations. It has been noticed that all the New South Wales seams, from the Silurian upwards, are uniform in their deposits, and this fact has led to the conclusion that this portion of the globe was comparatively free from violent eruptions and disturbances from the Silurian to the Permian period, and the[illegible] alternate submergences and

tralasia, especially in Queensland and New Zealand. During the year 1885 the output of the Queensland mines was more than double that of 1884, but the combined products of the whole of the Australasian group are insignificant when compared with those of New South Wales. The government authorities have divided the coal-fields of New South Water into three districts, the northern, southern, and western.

THE NORTHERN DISTRICT.

The northern district produces not only the best coal but the greatest quantity. The famous Hunter River and Newcastle mines belong to that district. The shipping facilities at Newcastle are extraordinary, the tonnage of the port being at times as large as that of Sydney, the metropolitan city of Australasia.

Newcastle, which contains a population of about 30,000, is situated 75 miles north of Sydney, on the left bank of the Hunter River, at its mouth, which indeed forms the harbor of the port. The public buildings possess many and varied attractions. The custom-house, post-office, market building, and hospital, the churches, &c., are constructed in the most approved style of architecture, and show the taste and wealth of the inhabitants. Vast sums have been expended in the last few years in improving the harbor. The depth of water on the shores is 22 feet.

The machinery used for loading vessels with coal is of very high order. It consists of 7 steam cranes and 4 shoots, belonging to the government, and 5 cranes belonging to the Australian Agricultural Company, and 2 belonging to the Newcastle Company. These cranes have a loading capacity of from 12,000 to 14,000 tons per day. The cranes at Bullock Island Dock have a capacity of 6,000 tons daily. Those erected on the wharf formed by the dike comprise 2 of 25 tons each and 6 of 15 tons each. As much as 250 tons of coal have been put aboard ship at Newcastle in sixty-six minutes.

A branch line with a viaduct over Thorsby's Creek connects the wharves at Bullock Island with the Great Northern Railway.

Naval-defense works have been constructed for the purpose of protecting the port in time of war. The fort at Flagstaff Hill, commanding the harbor, has three 9-inch guns and four rifled 80-pounders.

The quantity of coal produced in the northern district is about 2,350,000 tons per annum, more than two-thirds of the total coal product of the colony. In 1886 the output of the northern mines amounted to 2,415,112 tons. In 1885 there were 2,113,372 tons against 453,372 tons for the southern district and 311,762 tons for the western. The mines in the northern district are practically inexhaustible, and it is estimated that at the present rate of consumption they will last for the next seven hundred years.

The publication of the last report of the royal commission on the Newcastle collieries reveals many interesting facts in connection with the [illegible] mines. The report is a very voluminous one and contains 181 [illegible] collieries were examined by the [illegible] Wickham,

The commission was composed of gentlemen of large experience in coal mining, and especially in this colony. They examined as many as forty-five witnesses, and their testimony comprises one of the most valuable and interesting features in the report. The commission gave great attention, not only to the present condition of the mines, but to their prospective workings under the waters of the harbor or the Pacific Ocean. Very careful investigations were made as to the character of the strata shafts and underground workings in collieries some miles distant from the harbor but adjoining the Pacific Ocean. The area embraced measures from north to south 7½ miles, and from east to west 4 miles, and comprises portions of the parishes of Kahiba on the south and of Newcastle on the north. The report, after mentioning that the district is overlaid with rocks belonging to the lower Coal Measures, states that the Newcastle seam, the lowest workable coal of this series of Carboniferous rocks, as well as the higher and superimposed coal seams, once covered the whole area under review, and which at a subsequent period was denuded in certain portions by the action of the atmosphere, rain, frost, or running water at a time when the relative height of the land to that of the ocean was different from what it now is. The alteration in the relative position of the land and water may have been caused by the changes in the earth's ecliptic, probably arising from the effects of climate near the poles, or, it may be, but less likely, from the volcanic forces with which the vast insular continent of Australia was assailed during post-Tertiary, or, geologically considered, in comparatively recent times.

QUALITY OF THE NORTH DISTRICT COAL.

The northern coals are pure bituminous coals, with strong coking properties. They contain much less ash than those from the southern and western districts, although it is said that many engineers in the British navy and in the merchant-marine service prefer the semi-bituminous coal to the northern, because the disadvantage of the greater proportion of ash in the former is counterbalanced by the fact that it burns more evenly and uniformly than the other; moreover, it does not so readily form into clinkers; but when it is required to get up steam rapidly the northern coal is preferred.

Mr. W. A. Dixon, F. C. S., of the School of Arts, of this city, made a series of analyses of the various coals of the world for the International Exhibition at Sydney, and perhaps a better idea of the character of the New South Wales coals can be formed from his investigations than from any other source. In the work he had in hand he followed the calculation given by Percy, which divides all the different kinds of coal into anthracite, bituminous, and hydrous coals. Mr. Dixon had also in mind the conditions laid down by the commission appointed by the Admiralty to investigate the British coals for the purpose of the navy, one of which was that coal should not progressively decay, for in so doing it becomes liable to spontaneous combustion. Another condition was that it should possess considerable cohesion of its particles, so as not to break into small fragments by constant attriti[illegible]
Another point was that it sh[illegible]
showed [illegible]

I am indebted to Mr. Dixon for the following table, showing the comparative specific gravity and percentage of sulphur, ash, and volatile hydrocarbons in New South Wales and British coals:

Average analyses.

Coals.	Number of samples.	Specific gravity.	Sulphur.	Ash.	Volatile hydrocarbons.
Newcastle, New South Wales	14	1.311	0.91	4.97	37.55
Western New South Wales	9	1.347	1.03	10.31	30.42
Southern New South Wales	7	1.374	0.65	10.25	20.84
Newcastle, England	17	1.246	1.24	3.82	36.44
Derbyshire, England	8	1.284	1.06	2.54	39.12
Lancashire, England	28	1.279	1.37	4.64	40.61
Welsh	31	1.318	1.34	4.15	21.15

According to this table a ton of New South Wales coal would occupy nearly 6 per cent. less space than an equal quantity of British coal. Mr. Dixon states that New South Wales coal contains less sulphur than the British, and consequently is not so liable to spontaneous combustion or to affect the purity of the atmosphere.

The following tables, prepared by Mr. Dixon, show the component parts of various samples of coal in the northern district:

No. 1.—*Sample of coal from the Australian Agricultural Company's mine at Newcastle*

Specific gravity	1.286
Proximate analysis.	
Water	1.65
Volatile hydrocarbons	35.45
Fixed carbons	57.84
Ash	4.44
Sulphur	0.62
	100.00

Coke: 63.28 per cent. Ash: Reddish.

Analysis of ash.	
Alumina	22.84
Ferric oxide	15.20
Lime	1.98
Sulphuric oxide	.97
Phosphoric oxide	2.26
Alumina	3.45
Ferric oxide	trace
Silica	53.10
Undetermined and loss	.20
	100.00

No. 2.

	9.97

Phosphoric oxide	
Chlorine	
Alumina	.41
Silica	trace
Undetermined and loss	12.31
	75.56
	.32
	100.00

No. 3.—*Clarence River.*

Analysis of ash.

Alumina	22.78	Soluble in acid, 29.70.
Ferric oxide	4.01	
Lime	1.26	
Magnesia	.48	
Sulphuric oxide	.21	
Phosphoric oxide	.96	
Alumina	5.13	Insoluble in acid, 70.25.
Silica	65.12	
Undetermined and loss	.05	
	100.00	

No. 4.—*Ferndale colliery, Tighe's Hill.*

Specific gravity 1.296

Proximate analysis.

Water	2.10
Volatile hydrocarbons	36.22
Fixed carbon	57.24
Ash	3.84
Sulphur	.60
	100.00

Coke: 61.08 per cent. Ash: Buff-colored.

Analysis of ash.

Alumina	23.24	Soluble in acid, 38.96.
Ferric oxide	9.21	
Lime	2.41	
Magnesia	2.11	
Sulphuric oxide	.74	
Phosphoric oxide	1.25	
Alumina	6.42	Insoluble in acid, 61.14.
Ferric oxide	3.44	
Lime	.24	
Magnesia	.23	
Silica	50.81	
	100.00	

No. 5.—*Lake McQuarie.*

A bright bituminous coal.

Specific gravity 1.374

Proximate analysis.

Water	
Volatile hydrocarbons	2.31
Fixed carbons	31.95
Ash	53.88
Sulphur	11.12

Proximate analysis.

Moisture	2.59
Volatile hydrocarbons	33.87
Fixed carbon	56.49
Ash	5.61
Sulphur	1.44
	100.00

Coke: 62.10 per cent.; coke bright, dense, with fused appearance, little swollen.
Ash: Reddish, somewhat fusible.

No. 7.—*Newcastle Coal Company, Glebe, Newcastle.*

Specific gravity 1.283

Proximate analysis.

Water	2.14
Volatile hydrocarbons	33 36
Fixed carbon	59.16
Ash	4.76
Sulphur	.58
	100.00

Coke: 63.92 per cent. Ash: Buff-colored.

Analysis of ash.

Alumina	27.21	Soluble in acid, 43.30.
Ferric oxide	11.11	
Lime	1.46	
Magnesia	1.56	
Sulphuric oxide	.72	
Phosphoric oxide	1.24	
Alumina	6.51	Insoluble in acid, 56.34.
Ferric oxide	3.02	
Lime	.61	
Magnesia	.63	
Silica	45.57	
Undetermined and loss	.36	
	100.00	

No. 8.—*New Lambton mine.*

Specific gravity 1.291

Proximate analysis.

Water	2.61
Volatile hydrocarbons	30.62
Fixed carbon	59.56
Ash	6.72
Sulphur	.49
	100.00

Coke: 66.28 per cent. Ash: Reddish-colored.

SOUTHERN DISTRICT.

Illawarra and

above the level of the plain, and the others lie superimposed at convenient distances above each other and cropping to the surface. These seams vary in thickness from 4 feet to 17 feet 6 inches. The mine at Mount Keira is worked at an elevation of 500 feet above the level of the sea. The seam descends gradually until it reaches almost to the level of the ocean at Coal Cliff. The mine at the latter place is a very valuable one; coal can be put almost immediately from the mouth of the tunnel there into the bunkers of the vessels.

The method of working at Mount Pleasant is simple and inexpensive. No steam machinery is required. The coal is run down from the mountain by means of revolving drums and wire ropes.

Wollongong, the sea-port of this district, is the third in rank in the colony. It is situated about 64 miles from Sydney. The harbor has been greatly improved by the construction of a breakwater, and excavations out of solid rock to a depth of 18 feet, and by other improvements, such as the drainage of the old basin. The area of the new basins, which now form one, is about 3 acres. The district in which the mines are situated is noted for its fine wheat and dairy farms. The average price of land in the district is about £20 ($97.33) per acre. The farmers in this district have always complained of a scarcity of labor.

The subjoined table shows the component parts, specific gravity, of samples of coal from the southern district:

Locality.	Specific gravity.	Composition per cent., exclusive of water only.						Water, per cent.	Coke, per cent.	Calorific intensity (calculated).	Water converted into steam by 1 pound coal with calorimeter.
		Carbon.	Hydrogen.	Oxygen.	Nitrogen.	Sulphur.	Ash.				
Nattai	.....	91.24	3.60	0.59	.....	trace	4.56	3.28	92.37	8,590	Undet.
Mount Kembla	1.363	80.67	5.30	1.58	0.70	0.87	10.88	1.50	.....	8,276	13.21
Mount Keira	1.379	78.82	5.17	2.87	1.33	1.00	9.81	1.15	74.35	7,983	12.92
Berrima	1.364	69.92	4.55	13.09	0.56	1.30	10.58	1.70	64.24	6,653	11.82
Bulli (R. Smith)	1.471	76.35	4.75	5.04	.....	0.55	13.31	1.03	74.78	.....	12.21
Mean	1.394	79.401	4.675	4.833	0.52	0.74	9.829	1.733	76.436	7,875	12.54

THE WESTERN DISTRICT.

The western coals are much drier than those of the southern district, and contain considerable volatile matter. Mr. Dixon does not think that they will ever be exported in large quantities. He says, however, that they will answer for local purposes quite as well as many coals worked in Great Britain and France. Mr. Dixon examined nine samples of western coals for the International Exhibition, with the following results:

Table showing the average composition of western coals from nine analyses made by Mr. W. A. Dixon, F. C. S.

Constituents	

It was noticed that the ash in western coals was white and dense. In the northern samples it is often buff and red tinted.

From a series of analyses made by Professor Liversedge, of the Sydney University, I learn that the amount of ash in the coals from the northern district was 2.70 to 8.82 per cent., or upon an average of 5.41 per cent.; southern district from 4.41 to 13.52 per cent., average 10.02; western district from 6.88 to 12.91 per cent., average 9.87 per cent. ash. The subjoined tables by Mr. Dixon show the analysis of samples of coal in the western district:

No. 1. 1.329

Specific gravity

Proximate analysis.

Water	2.70
Volatile hydrocarbons	28.78
Fixed carbon	57.88
Ash	9.88
Sulphur	.76
	100.00

Ash: Gray.

Analysis of ash.

Alumina	21.13	Soluble in acid, 24.62
Ferric oxide	1.39	
Lime	.78	
Magnesia	.61	
Sulphuric oxide	.16	
Phosphoric oxide	.55	
Alumina	14.21	Insoluble in acid, 75.23
Magnesia	trace	
Silica	61.02	
Undetermined and loss	.15	
	100.00	

No. 2.—*A sample of the whole thickness of a four-foot seam at Katoomba.*

It consists of a mixture of a bituminous and splint coal, with bright and dull colored pieces.

Specific gravity 1.343

Proximate analysis.

Moisture	2.71
Volatile hydrocarbons	25.31
Fixed carbon	60.90
Ash	10.84
Sulphur	.24
	100.00

The coke is dense, scarcely swollen, but fairly lustrous; the ash is white. This is a fairly good coal, the low percentage of sulphur being particularly noteworthy.

Analysis of ash.

No. 3.—*Lithgow Valley colliery.*

Specific gravity	1.340

Proximate analysis.

Water	2.24
Volatile hydrocarbons	28.48
Fixed carbon	58.80
Ash	9.68
Sulphur	.80
	100.00

Ash: Grayish-white.

Analysis of ash.

Alumina	20.24	Soluble in acid, 23.72
Ferric oxide	1.42	
Lime	.74	
Magnesia	.57	
Sulphuric oxide	.11	
Phosphoric oxide	.64	
Alumina	16.02	Insoluble in acid, 76.23
Silica	60.21	
Undetermined and loss	.05	
	100.00	

Other samples of coal from this district have been examined with fully as favorable results. At Wallerawang (western district), 105 miles from Sydney, good coal, hard and compact, has been found. One sample from a seam 17½ feet thick yielded upon analysis 55.74 per cent. of fixed carbon, 33.24 volatile hydrocarbon, water 1.51, and ash 9.50 per cent.; specific gravity, 1.333; coke, 62.25.

Above the lowest seam was one of 6 feet 6 inches, and several others varying from 3 to 4 feet in thickness. There are extensive strata of limestone in the same district. They occur at the junction of the Coal Measures with Upper Silurian or Devonian beds, and consist of magnetite and brown hematite, as well as clay band ores, which are interstratified with the Coal Measures. The magnetite runs approximately northeast and northwest, and the magnetic effect is said to be so powerful as to render the compass useless in the neighborhood of the lode. The vein is 13 feet wide, the ore compact, and accompanied by silicious gangue. It yields about 41 per cent. of iron and is free from phosphorus and sulphur. The brown hematite vein has nearly the same direction as the above, and along the line of its outcrop great blocks of ore are scattered from 12 to 50 feet for nearly a mile. At a depth of 40 feet the vein is 18 to 20 feet thick, and the ore is composed of mammillated fibrous nodules. There are four seams of clay band which lie nearly horizontally, and crop out on both the east and west sides of the dividing range. The lowest is rather impure, but the others are good, containing from 49 to 56 per cent. of metal and very little sulphur or phosphorus. The seams average from 10 to 20 feet in thickness.

TOTAL OUTPUT.

The total output of all the coal mines for the year 1886

suming 5 cubic feet per hour. It is exported to the neighboring colonies and to San Francisco, where it is used in the manufacture of gas. Indeed its properties are so rich, that an addition of 5 per cent. to ordinary bituminous coal is all that is required to give gas made therefrom the requisite illuminating power.

Considerable quantities of this shale are consumed in the colony in the manufacture of kerosene by the process of slow distillation. The quantity of kerosene shale oil made from it during the year 1886 was 112,000 gallons against 96,000 gallons for 1885. This oil, while not as good as the American, is becoming popular here, partly because it is of home manufacture, and from the fact that it is sold at a lower price than that imported from the United States, upon which there is a duty of 6*d.* (12 cents) per gallon. This subject has, however, been treated at length by me in my special report on "Kerosene and Kerosene Shale," published in No. 60 of the Consular Reports.

The total output of the coal mines of New South Wales since the commencement of coal mining, in 1858, is estimated in the government returns at 35,723,274 tons. The quantity produced in 1858 was 216,397 tons, valued at $810,810. Of this 102,870 tons were used for home consumption; the remainder was exported. In 1868 the annual output had increased to 954,231 tons. In 1878 it was 1,575,497 tons; and in 1886, as previously stated, 3,000,000 tons. The quantity used for home consumption during 1886 was estimated at 1,300,000 tons.

Quantity and value of the output of the mines for each year from 1858 to 1886, inclusive.

Years.	Tons.	Value.	Years.	Tons.	Value.
1858	216,397	$810,810	1873	1,192,862	$3,328,735
1859	308,213	1,021,855	1874	1,304,612	3,951,320
1860	368,862	1,132,465	1875	1,329,729	4,097,145
1861	342,067	1,094,100	1876	1,319,918	4,016,500
1862	476,522	1,526,170	1877	1,444,271	4,294,990
1863	433,889	1,181,150	1878	1,575,497	4,604,680
1864	549,012	1,350,855	1879	1,583,381	4,754,390
1865	585,525	1,371,515	1880	1,466,180	3,076,680
1866	774,238	1,620,245	1881	1,769,597	3,016,240
1867	770,012	1,713,275	1882	2,109,282	4,744,825
1868	954,321	2,089,045	1883	2,521,457	6,009,705
1869	919,774	1,730,730	1884	2,749,100	6,515,380
1870	868,564	1,584,180	1885	2,878,863	6,701,060
1871	898,784	1,581,700	1886	3,000,000	7,064,427
1872	1,012,426	1,980,990			

The subjoined table shows the quantity and value of coal raised in each district for 1885:

District.	Quantity.	Value.
	Tons.	
	2,113,372	$5,164,970
	453,720	1,152,530
	311,762	334,962

the Duckenfield, 215,723 tons; all in the same district. In the southern district the Mount Kembla mine produced 128,579 tons; the Osborn Wallsend, 108,579 tons. The next were Illawara, 99,841 tons, and Coal Cliff, 84,500 tons. The richest mines in the western district were the Lithgow Valley, 73,500 tons; Esk Bank, 67,615 tons; Zigzag, 60,000 tons, and Katomba, 40,000 tons.

The mine at Greta, northern district, is worked at a greater depth than any other in the colony, and that of the Agricultural Company comes next. The former is 450 feet, and the latter 303 feet in depth. Coal has, however, been found with the assistance of the diamond drill at a depth of several thousand feet. The greatest depth penetrated has been on the Sydney Coal Mining Company's property, near this city. Up to the 23d of January of the present year, 2,228 feet has been bored, and the bottom of the conglomerate was reached. Mr. C. S. Wilkinson the colonial geologist, and Mr. W. J. Slee, inspector of mines, were present at the withdrawal of the final tube, and it was found to contain as follows: One foot of coaly shale, a 3-inch band, 18 inches of semi-bituminous or bituminous and splint coal combined, and lastly shale and coal mixed, making in all about 4 feet of coaly shale and pure coal. Mr. Wilkinson is of the opinion that at a further depth of from 25 to 40 feet the main Carboniferous measure which runs through the district will be reached. The samples which have thus been unearthed are from the deepest coal deposit which has ever been reached in the southern hemisphere.

EXPORT OF COAL.

The total export of coal, from the opening of the mines in 1858 to the close of 1886, amounted to 22,428,585 tons, valued at $110,027,480. The exports for 1886 were 1,735,865 tons, valued at $4,735,010, against 1,756,356 tons, valued at $4,833,315, for 1885.

The following table shows the quantity and value of the coal exports from New South Wales for each year from 1876 to 1886, inclusive:

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.			*Tons.*	
1876	868,817	$3,126,055	1882	1,261,545	$3,235,165
1877	915,725	3,244,835	1883	1,512,445	4,148,310
1878	1,006,420	3,542,030	1884	1,690,763	4,655,225
1879	998,049	3,023,535	1885	1,756,356	4,833,315
1880	753,356	1,126,429	1886	1,735,865	4,735,010
1881	829,844	2,087,650			

COUNTRIES WHITHER EXPORTED.

The greater part of the coal exported from New South Wales is consumed by the neighboring colonies. Out of the total exports for 1886 the colonies consumed 1,027,775 tons, valued at $2,724,120, Victoria receiving 640,655 tons, valued at $1,684,895; South Australia 140,623 tons, valued at $365,315; Tasmania 47,501 tons, valued at $139,185;

The following table shows in detail the quantity and value of coal exported to each place from New South Wales for each year from 1884 to 1886, inclusive:

Port.	Quantity.	Value.
1884.	*Tons.*	
Great Britain	5,000	$136,000
Victoria	519,385	2,317,000
South Australia	174,773	485,310
Tasmania	38,490	102,755
New Zealand	205,280	567,590
Queensland	39,776	108,810
Western Australia	16,383	49,245
South Sea Islands	6,406	21,020
New Caledonia	14,935	39,510
Fiji Islands	12,978	36,730
Hong-Kong	127,233	349,360
Calcutta	3,551	11,430
Bombay	4,051	11,140
Mauritius	16,612	47,605
Singapore	36,733	94,395
Ceylon	4,364	13,375
Tuticorin	3,241	8,665
Rangoon	11,822	34,480
Madras	3,672	10,235
Bassein	1,370	3,885
Guam	976	2,685
Mexico	2,890	7,935
Bangkok	1,694	4,660
Nagapatam	6,637	$18,930
Saigon (Cochin-China)	100	350
Eureka	699	2,970
Wilmington, Cal	32,506	106,190
Réunion	483	1,305
Panama	3,160	8,685
New Guinea	600	1,650
Padang	9,819	27,005
San Diego	871	2,395
Astoria	1,481	4,170
Petropaulovski	165	600
San Francisco	167,888	494,690
China	36,081	107,970
Chili	46,563	134,715
Honolulu	10,925	30,600
Java	62,415	173,580
Manila	40,410	110,815
Peru	7,346	21,645
Japan	1,942	5,305
Penang	3,100	8,925
Portland, Oreg	5,627	17,055
Total	1,690,736	5,620,970
1885.		
Victoria	557,325	1,455,805
South Australia	142,277	372,675
Tasmania	47,508	127,035
New Zealand	180,164	482,710
Queensland	52,341	145,525
Western Australia	12,309	33,465
South Sea Islands	4,919	15,455
New Caledonia	7,945	26,540
Fiji Islands	16,310	45,130
Hong-Kong	113,348	315,175
Calcutta	13,223	43,875
Bombay	18,439	51,505
Mauritius	7,763	21,680
Singapore	47,378	130,765
Ceylon	12,079	33,465
Tuticorin	10,243	31,790
Rangoon	1,200	4,500
Madras	3,260	9,340
Bassein	10,251	28,390
Guam	1,523	4,190
Mexico	914	$2,510
Bangkok	9,080	25,960
Nagapatam	1,195	4,500
France	1,422	4,260
Eureka	31,695	101,120
Wilmington, Cal	2,118	5,795
Panama	700	1,980
New Guinea	506	1,390
Padang	4,153	11,420
San Diego	250	875
Burrard's Inlet	171,042	497,515
San Francisco	34,449	104,805
China	68,497	197,780
Chili	15,886	45,075
Honolulu	66,800	189,885
Java	56,827	156,100
Manila	10,272	30,405
Peru	4,108	11,210
Japan	13,720	43,265
Portland, Oreg		
Total	1,756,356	4,633,315
1886.		
Victoria	640,655	1,684,895
South Australia	140,623	365,315
Tasmania	47,501	130,165
New Zealand	165,217	450,935
Queensland	22,053	60,755
South Sea Islands	815	2,495
New Caledonia	9,537	26,105
Fiji Islands	21,929	61,270
Hong-Kong	100,586	260,740
China	23,743	61,975
Chili	41,794	119,935
Honolulu	23,765	64,030
Western Australia	11,726	32,055
Java	33,294	93,030
Manila	36,617	97,545
Peru	5,866	15,675
Mauritius	6,334	18,010
Singapore	5,934	16,170
Ceylon	5,868	17,700
Burmah	8,155	23,225
Guam	1,795	4,955
Mexico	9,287	25,920
Bangkok	1,885	5,150
Burrard's Inlet	200	600
Panama	3,555	10,125
British New Guinea	600	1,650
Macassar	390	1,375
Padang	3,863	11,060
Petropaulovski	1,750	4,990
Cape Town	318	870
India	54,386	151,385
San Francisco	218,819	634,430
Wilmington, Cal	53,433	158,175
Portland, Oreg	22,111	61,250
Astoria	11,411	31,050
Total	1,735,865	4,735,010

allowed upon coal imported into the United States for the use of foreign and domestic steamships are the principal causes of the increase.

I give below a table showing the quantity and value of coal exported to the United States from New South Wales from 1881 to 1886, inclusive, and the names of ports to which exported:

Port.	Quantity.	Value.	Port.	Quantity.	Value.
1881.			1884.		
	Tons.			*Tons.*	
San Francisco	138,772	$317,935.	Wilmington, Cal	32,506	$106,190
Portland	11,230	23,175	Astoria	1,481	4,170
			San Francisco	167,888	494,690
Total	150,002	341,110	Portland, United States	5,627	17,055
			Total	207,502	622,105
1882.			1885.		
San Francisco	172,958	482,480	Wilmington, Cal	31,695	101,120
Portland	6,113	18,560	San Francisco	171,042	497,515
			Portland	13,720	43,265
Total	179,071	501,040	Total	216,457	641,900
1883.			1886.		
San Francisco	191,184	579,105	San Francisco	218,819	634,480
Astoria	1,190	3,250	Wilmington, Cal	53,483	158,175
Portland	16,291	45,610	Portland	22,111	61,250
			Astoria	11,411	31,050
Total	208,665	627,965	Total	305,824	884,955

MINERS' ACCIDENTS, DISPUTES ABOUT WAGES, ETC.

The total number of miners at the various collieries in New South Wales during the year 1885 was 7,197; of these 1,510 were employed above ground and 5,378 below ground.

An interesting feature in connection with coal mining in New South Wales is its comparative freedom from accidents, such as fire-damp explosions, which render the loss of life so appalling in Britain. The total number of accidents in New South Wales during the year were 51, and of these only 11 were fatal. Of the non-fatal accidents 31 occurred in the northern district and 9 in the southern district; of the fatal accidents 8 occurred in the northern district and 3 in the southern. The greater portion of these accidents were occasioned by the fall of coal, and but one or two from the explosion of gunpowder.

The wages paid to miners are from 10*s.* ($2.43) to 15*s.* ($3.65) per day. The wages and the number of hours the men are required to work have been the causes of frequent disturbances, which in some instances have led to serious rioting and loss of life. These disputes are usually settled by arbitration. They assume a very grave character when the coal companies insist on the employment of non-union men, or blacklegs, as they are called by the miners. As many as 500 to 700 men are out on a strike at once, and it is astonishing the length of time they are enabled to hold out. One of the most noted of these strikes occurred last year, when 300 of the men struck at the Lambton mine, in the northern district. The men demanded additional pay as the difficulty of the work increased, and the labor council of their district [illegible] course. The miners hold

The strike at Mount Kembla and Mount Keira, in the southern district, which began in December last, was of a very serious character. The men, after committing several acts of violence, refused every concession offered by their employers, and the dispute, which promised to become still more serious, was not settled until a large number of miners had been ordered from Europe by cable. It was then agreed that the men should resume duty upon the terms formerly proposed by their employers, and that the European miners should upon their arrival be provided with work upon other coal-fields in the same district.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, New South Wales, February 9, 1887.

THE GOAJIRA PENINSULA.

REPORT OF CONSUL PLUMACHER.

The peninsula of the Goajira, which forms the extreme northwestern part of Venezuela, is chiefly remarkable for its entire abandonment into the hands of the Indians of the same name, who have succeeded up to the present day in preserving their absolute independence, recognizing no authority except that of their own chiefs.

Were this section distant from civilization, as are the Upper Orinoco and Amazon Indian regions, this state of affairs would excite no comment. But situated as it is between the progressive State of Zulia on the one hand and the settled Colombian territory of Rio Hacha on the other, it seems strange that no successful attempts have been made to open up a country which, from its favorable position and natural advantages, offers such an excellent field for colonization.

THE GOAJIRA INDIANS.

At the time of the Spanish conquest the Goajiras occupied their present territory, but tradition is almost silent respecting their remote antecedents.

They are divided into different tribes or clans, all, however, being of the same race, with similar language and customs, and the different divisions now existing are no doubt developments of individual families of the same general stock. They are robust and warlike, with dark complexions and straight hair, and, like most savages, are irreclaimably given to raids and robberies, keeping the interior of the peninsula in an almost constant turmoil.

The Venezuelan Government has contented itself with placing a military post on the frontier for the protection of the whites who, attracted by the fine grazing country, have established cattle farms and small set-

[illegible] in the neighborhood. [illegible] Indians at times combine in [illegible] and

wards all who are not of their own race, yet they are quite alive to the advantages of trade, and in the dry season make frequent visits to the frontier settlements, where they exchange their cattle, horses, asses, &c., for the products of civilization, among which rum holds the first rank. They barter also for calicoes, sheeting, beads, knives, and other articles useful to the savage, but which he has not the means or ingenuity to supply for himself, giving in exchange animals of their own breeding and not unfrequently young children and girls, which latter become the mistresses of their purchasers, and the former are trained to domestic service.

When the Indians are not unquiet it is frequently the case that traders penetrate into the interior, and these expeditions have at times given great profit. It is necessary, however, for the security of the individual that he should have some special bond of union with the prominent caciques, and this is generally marriage, which has become a mere matter of trade.

On account of the division of the Indians into various tribes, usually at feud with each other, it often happens that a trader has several wives, each being of influence in her particular clan, which insures her husband a safe-conduct in her own district, where she continues to reside among her people, and seeing her husband only when he may chance to visit that particular region.

Marriage of this character is a somewhat expensive luxury, as besides the articles of value, amounting sometimes to several hundreds of dollars, given to the girl's father, all of her relatives, to the most remote degree of kin, expect to be favored with gifts.

CUSTOMS OF THE INDIANS.

These Indians know but little of agriculture, but engage largely in the breeding of cattle, for which the peninsula is most admirably adapted. Maize and vegetables are cultivated on a small scale, and cotton, which grows wild in some localities, gives exceptional returns when any attention is paid to its culture.

The women spin their own yarns, and with rude hand-and-foot looms weave a substantial fabric of which they make hammocks and other articles which are durably dyed in various colors by peculiar earths and the juices of trees and plants.

The customs of the Goajiras are singular and interesting, and it is noticeable that their laws and usages have remained without change from time immemorial. One of their most striking customs is a complicated system of what is called by them "payment of tears and blood," and this is the principal cause of the conflicts between the clans.

Among all savages revenge is a sacred duty, and as according to Goajira ethics an entire tribe is supposed to be responsible in the aggregate and individually for the acts of one of its members, a trifling affair in the beginning may produce grave consequences ultimately. This is one of the reasons why it is so dangerous for white men to enter the Goajira territory, as the Indians make no distinctions of nationality, but consider all who are not of themselves as belonging to one grand family, all the members of which are responsible for a [illegible] rage committed by an individual

pecially those on his mother's side, who are supposed to be of a closer relationship than the family of his father.

The complication of this system will be seen from the following examples:

(1) *Self-inflicted injuries.*—If an Indian accidentally wound himself, break a limb, or meet with any similar accident, his mother's family immediately demand of him the "payment of blood," on the theory that, as his blood is also their own, he has no right to shed it without making compensation. The relatives of his father also claim the payment of their tears, which is of less value. Even the friends who may have witnessed the accident are entitled to compensation for the grief into which they were plunged at seeing their companion suffer.

The amount of the payment depends upon the character of the injury. A trifling cut of the finger calls for a little corn, a kid, or something of equal value, and if the matter is more serious nothing less than a goat or a sheep, or perhaps a cow, can assuage the sorrow of the sympathizing relatives.

If the injured party is too poor to satisfy these exigencies he must go begging, going from hut to hut, and no one will refuse to contribute his mite to assist in the performance of a recognized duty.

(2) *Injuries inflicted by animals.*—If an Indian borrows a horse from a friend and is thrown, or in any way injured, his relatives demand compensation from the owner of the animal, alleging with undeniable logic that the accident could not have happened had he not lent it. In case a person is injured by his own animal he himself must compensate his relatives accordingly.

(3) *General responsibility.*—This is of daily occurrence, and may happen in various ways. For example, the seller of any article is responsible for the results which may follow from its misuse. For this reason traders penetrating to the interior do not carry rum for traffic unless they are strong enough to defend themselves and property, as should compensation for the results of over-indulgence be denied, the Indians would feel quite justified in seizing anything they might be able to lay hands upon.

It is considered an affront, which must be paid for, to call a Goajira by his Indian name, as nearly all have adopted Spanish patronymics and many have even become baptized, not from the slightest religious feelings or knowledge, but simply to enjoy a big spree gratis at the feast celebrating the ceremony, and to have afterwards god-fathers to appeal to and impose upon.

Pronouncing the name of a deceased Indian in presence of any of his surviving relations is also a most grave offense, and can only be condoned by large payments.

In these complicated laws of compensation, as may be imagined, strict justice is not always considered, as if a person should be wounded or lose his life while attempting to kill another, the latter must pay blood and tear money in the same manner as if he had been the aggressor. To such an extreme is this system carried that should a child of one of its parents, the latter can demand from the occurrence.

gown. During the first few days she must not drink water, sustaining herself only with a composition of medicinal herbs called "*haguape.*" She is then publicly spoken of as "*surtirse surupauru,*" the literal translation of which is, "shut up in her house."

The duration of this retirement varies according to the position of the family. The poorer Indians cannot permit their daughters to remain idle for more than a few weeks, while among the rich this seclusion may continue for two, three, or even four years.

During this time the girl learns all that a woman is supposed to know. She is taught to spin and weave, make clothing and hammocks, and everything pertaining to aboriginal domestic economy. The inactive life soon makes her fat, her complexion becomes clearer, and in many cases there may be noted absolute beauty of feature.

It is not forbidden to the young men to glance at her through the door (though they may not enter the house), provided the inspection is made with matrimonial ideas, and should an eligible suitor demand her hand, she is usually at once released and the bargain is made, although the richer bridegrooms often prefer that the full period of seclusion be observed.

When the young lady is thus restored to society a grand family feast is celebrated, cattle are killed and a ball organized, while the heroine of the day, dressed in the clothes which she has made during her retirement, and in the glory of her restored ornaments, is then considered as married without further ceremony except the payment of her stipulated price. This consideration generally takes the shape of cattle divided between the father and other relatives of the bride. The woman is then obliged to maintain her husband in food and clothing, and is the principal in all matters of business, no bargain made by a man being considered valid unless it has received the sanction of his wife. Women are treated with much consideration, and it is important for a stranger to gain their good will.

An Indian cannot maltreat his wife, as, by the law of compensation, her relatives would demand a reckoning, and should the woman die in childbirth the husband must pay to her father an amount equal to her original price, but if the wife prove unfaithful, which is of very rare occurrence, her father must refund to the husband the payment made at the time of the marriage. Should he be unable to satisfy this demand, he looks to the seducer to make good the amount, besides the "payment of tears' to the girl's mother.

Upon the death of the husband the wife becomes the inheritance of one of his brothers, usually the youngest, and if there are no brothers, of the nephew.

FUNERALS.

The death of an Indian is always followed by a grand debauch, the duration of which depends solely upon the quantity of liquor obtainable.

At a recent funeral feast of a great cacique more than one hundred and fifty bullock hides were exchanged for the rum consumed. As liquor is exceedingly cheap, and hides, being an important article of export, command a high price, the amount [illegible]
sion may be [illegible]

an earthenware jar, and buried in the cemetery of the clan, which is usually a concealed spot surrounded by a hedge of living cactus.

DRESS.

The dress of the Indians is simple, and probably the same fashion has existed for centuries. The males, in every-day attire, wear a cloth around the loins and a plaited grass ring upon the head, but on occasions of ceremony they appear with handsome cotton mantles of variegated colors, head-dresses of feathers, and faces painted most extravagantly.

The dress of the women is a long voluminous gown, made exactly like a bag, with apertures for the head and arms. In a high wind these garments inflate, giving to their wearers the appearance of walking balloons. The females also paint profusely, but neither sex seems to have any conception of artistic effect.

The ornaments most esteemed are collars, necklaces, and bracelets of beads, which are used with great prodigality. These are for the most part of foreign make, but the most valued and the possession of which indicates wealth are the "tumas." These are roughly-shaped reddish stones, perforated for stringing, and comprising varieties of jasper, onyx, cornelian, and agate, and are apparently of great antiquity, having been handed down from generation to generation from long before the Spanish conquest. In no part of the Goajira peninsula have these stones been discovered in a natural state, and it is believed they were brought by the remote ancestors of the present race, who no doubt migrated from some other part of the continent.

In ancient graves, of which the Indians themselves have no record, the tumas have been found, and in all cases perforated like beads.

The possessor of a necklace of tumas may consider himself rich, but much suffering and privation will be endured rather than part with these heirlooms, and they are consequently most difficult to obtain even at a price far above their intrinsic value.

ARMS.

The traditional arms of the Goajiras are bows and arrows, and although they are plentifully supplied with fire-arms, they still cherish the weapons of their ancestors. Of the arrows there are three classes:

(1) The "*hatu*," pointed with a sharpened nail or hard wood for small game, such as birds and lizards.

(2) The "*siquarrai*," with barbed-iron points made of knife-blades, and used both in the chase and in war.

(3) The poisoned arrows called "*aimara*," about three feet long, and pointed with the spur of the sting-ray dipped in an active poison made from putrefied animal substances in the following manner: Dead toads, snakes, and other reptiles are placed in a vessel and allowed to remain until a homogeneous mass of rottenness is formed, which is condensed over the fire to a thick paste. The wound made by an arrow thus poisoned generally causes death in from five to ten days, the only possible [illegible] depending upon the immediate extraction of the wound.

traders, as the large profits thus secured render the temptation irresistible.

FEATURES OF THE PENINSULA.

The extreme south of the Goajira region is well populated by whites engaged chiefly in stock-raising.

The general character of the country is that of a flat plain, with tracts of sand-hills here and there, and covered with a variety of grasses, of which I forward specimens and inclose a description.

There is an infinite variety of herbaceous plants, many of which are used by the Indians as remedies. I have secured a small collection of specimens, which I forward by this steamer, inclosing herewith a list and account of their reputed properties.

Towards the north and west of the territory there are ranges of hills of considerable elevation, and the country becomes more broken and wooded. Cattle thrive wonderfully in these plains, the great drawback being that in exceptionally dry years the want of water is severely felt. There are no running streams, but the rain which falls in the wet season forms lagoons from 1 to 3 feet in depth in the low levees of the savanna, which are supposed to last during the dry weather. As a rule the cattle-breeders have had general good fortune in this respect, but in 1885 there was no rain during a period of eleven months, a phenomenon which caused serious losses.

To provide against the contingency of the complete drying up of the lagoons, each breeder has near his house, and surrounded by a fence, an excavation of from 8 to 10 feet deep, and of a diameter proportionate to the number of his cattle. This excavation fills during the rainy season, and is then covered with a rude shed of branches to lessen the evaporation. This is the reserve stock of water in case of prolonged drought, and as the cattle, if allowed free access, would soon destroy the well entirely, the work of dipping out in buckets and pouring into a trough on the outside of the fence is a never-ceasing and tedious task, as no one has as yet thought to put up a pump and thus save time and labor. It is seldom, however, that this necessity arrives, as although the majority of the lagoons in the savanna always dry up before the commencement of the following rainy season, yet there are always a few which usually hold over sufficient water.

There is a curious circumstance connected with these miniature lakes, and for which I have heard no satisfactory explanation. Every one swarms with small fish, although the same spot may have been a few weeks before completely parched and dry. As the dry season advances one after another of the lagoons disappear, leaving their former beds exposed for months to a fierce sun, which makes it impossible to believe that the life of any aquatic animal could be preserved in a soil so burnt and arid. With the rains, however, the fish appear as usual, the Indians firmly believing that they fall from the sky.

Mr. Auguste Pelissier, a gentleman residing for years on the frontier, and who has given some thought to the subject, has a theory that the various birds (storks, cranes, ducks, pelicans, curlew, snipe, &c.) which frequent these lagoons in great numbers eject with their excrement un-

digested fish eggs, and that the [illegible]

INDIAN RAIDS.

The constant risk of predatory incursions by the savages has been an undeniable drawback to the successful pursuit of cattle-raising on the frontier; but since the sound thrashing the Indians received about a year ago, it is believed that this danger is greatly lessened, if not entirely removed.

In February, 1886, the frontier district near the important town of Sinamaica was invaded by a force of about 250 mounted Goajiras and 150 on foot, armed with rifles in addition to their bows and arrows. They succeeded, before the neighborhood was aroused, in driving off many hundreds of cattle and a large number of horses; but before they could cover their retreat a small mounted force of 55 whites attacked them and killed the chief cacique at the first fire. This so demoralized the robbers that the little band of assailants were able to recover all the property stolen, besides many fine horses belonging to the Indians, who, after suffering a slaughter which was almost a massacre, fled to the interior. This had a most wonderful effect, and if the Government had chosen to follow it up with a determination to preserve order and insure security for travelers and explorers throughout the entire peninsula, the task would not have been of difficult accomplishment.

CATTLE-BREEDING.

The cattle of the Goajira are not very large, but fatten well, and with care and ordinary good luck the profits are very satisfactory, it being calculated that in four years the original capital invested may be doubled.

The expenses are not great, as but few hands are employed, and wages range from 4 to 8 pesos per month, with board.

The cows are milked once a day, averaging about 8 quarts. During the day the cows and calves are separated in different parts of the savanna, and are brought to the corrals in the evening. The cows are then milked and the calves remain with their mothers during the night.

There is a fashion universal in South America of tying the calf to the fore leg of the mother during the milking, as it is believed that without this precaution the cow would give little or nothing.

As in most parts of the world the breeders at times have had to encounter disease among their stock similar to the cattle plague which caused a few years ago such serious losses in the United States, but it has never assumed alarming proportions.

One great and constant annoyance is caused by parasitic worms which burrow into the ears, anus, and navel of new-born animals, and in any other vulnerable spot, forming ulcers which often produce death. In all tropical countries one of the chief cares of a breeder is the sharp lookout which must be kept for these parasites, and their prompt removal as soon as discovered.

The position of the territory gives it ample shipping facilities, but not on that part of its coast pertaining to Venezuela.

One-half of the peninsula belongs to Colombia, which nation indeed claims it all, the matter now being under the arbitration of the Spanish court, and the magnificent bay of Bahia Honda, on the northwest, is the future harbor of the territory.

Recent surveys have been made by an English engineer with a view to find a good harbor on the east coast where a port and custom-house might be established with a railway to Maracaibo, thus making a port of call for ocean steamers and doing away with the necessity of entering the lake. The result of the surveys, however, have demonstrated the impracticability of this project, as no sheltered harbors exist and the depth of water along shore is not sufficient.

The southern limit of the region inhabited by the Goajiras is formed by the river Limon, whose neighborhood is worthy of careful exploration. For some distance from its mouth the country is somewhat settled both by breeders and agriculturists, as the soil is of unsurpassed fertility, but towards its headwaters, which take their rise in a mountain range near the Colombian frontier, civilization has never penetrated, and the country is as yet virgin. Mahogany and other valuable woods exist in abundance, and the flora generally is varied and valuable.

Clearing land would be a most profitable enterprise instead of an expense, and this being accomplished a colony of energetic agriculturists would obtain surprising results, as the proximity of the river renders irrigation of easy and cheap accomplishment and offers a facile outlet for the products of the soil and forests.

Near the sources of the river Limon excellent indications of the precious metals have been discovered by the few adventurous spirits who have penetrated those unexplored regions, and it is to be hoped that at no distant day this territory, doubtless rich in mineral wealth, and offering in other respects exceptional advantages to the settler, may be made the object of a thorough and minute examination.

E. H. PLUMACHER,
Consul.

UNITED STATES CONSULATE,
Maracaibo, March 15, 1887.

Description of specimens of grasses from Goajira peninsula forwarded to the Department of State.

Saladilla.—A fine nutritious grass, and the most esteemed for fattening cattle. In the dry season, however, the *saladilla* becomes covered with a black dust, rendering it unpalatable.

Cardillo.—A curious grass, filled with burs or *cardillos*, similar to the sand-burs of the United States. This grass is disseminated universally, growing in perfect harmony with other grasses, and is eaten, burs and all, by the cattle. Sheep and young goats and donkeys suffer much from the *cardillos*, as they are detached at a touch and embed themselves in the coat of the animal, causing ulcers to which the worms get access, often producing death.

Pata de gallina.—So called from a fancied resemb[illegible]
hen. This grass form[illegible]
green and [illegible]

Paja San Antonio.—Resembling somewhat the *pata de gallina*, and equally valuable.
Paja del zorro.—A grass which is found in great abundance and has good properties. although inferior to the *saladilla*.

There are many other varieties of grasses scattered over the peninsula, and some no doubt are as yet unknown to the botanist. The *saladilla*, however, is by all accounts far superior to all others, and judging from the sleek, well-fed look of the cattle there can be no question that it is a most valuable pasture grass.

When certain portions of the savanna are completely overflowed during the rainy season there is found at the bottom of the lagoons a species of moss of which the cattle are very fond, and they may be noticed standing for hours with the water up to their bellies and diving under with great expertness in order to fish up mouthfuls of the coveted moss.

Description of the specimens of herbal remedies used by the Indians of the Goajira peninsula, and forwarded to the Department of State.

(1) *Palo amargo.*—The *palo amargo* is a tree somewhat resembling the olive in size and general appearance, its foliage being of a dark lustrous green. The bark is used by the Indians as a substitute for cascarilla in the treatment of fevers, and the results are said to be excellent. An infusion for the same purpose is also made from the leaves and flowers.

(2) *Sávila.*—Indian remedy for the gonorrhea. The *sávila* is a creeper, and when fresh contains a thick white milk. The method of applying this remedy is simply to cut off a few inches of the living plant and insert in the urethra as a bougie, changing it three or four times a day.

(3) *Barradera.*—A hot infusion is used as a vermifuge.

(4) *Pericon.*—Used in combination with the *barradera*, which then becomes not only a vermifuge but also a febrifuge.

(5) *Brusca* roots and flowers, pounded and well boiled in water. The water is then used as a friction in cases of rheumatism.

(6) *Brusca* in grain and in the bean.

(7) *Brusca* grain, roasted and pulverized. This is drunk as a substitute for coffee, and is said to be an excellent remedy for irritation or inflammation of the bowels.

(8) *Yerba de la India.*—Used as an infusion for coughs, chest diseases, and catarrh.

(9) *Pinga de perro.*—Hot infusion for the cure of diarrhea.

(10) *Tapa-leche.*—Said to be a remedy for small-pox.

(11) *Contra culebra.*—Antidote to bite of snakes and other venomous animals. Drink its infusion and apply the bruised plant to the wound.

(12) *Sen.*—A very powerful purge.

(13) *Morita.*—The water in which *morita* has been boiled is said to dry up syphilitic and other virulent ulcers.

(14) *Malvilla.*—Used in foot-baths in cases of fever.

(15) *Culantrillo.*—Infusion is given as a remedy for diarrhea.

(16) *Emetic bean* (name not ascertained).—A small portion powdered and administered in tepid water causes most violent vomiting.

(17) Remedy for dysentery, said to be very efficacious. It is made of pulverized goat manure, mixed with the chopped leaves of a plant, of which specimens could not be procured nor its name ascertained. A small quantity of this composition is said to cause bloody discharges to cease entirely in a few hours.

THE FIELD FOR AGRICULTURAL MACHINES IN GERMANY.

REPORT OF CONSUL GOODWIN.

A gentleman interested in Saxon agriculture* has just published an ... mass of statements and figures which seem to show ... in Saxony to a far greater

machines were in use in Saxony two ways were suggested, one by means of inquiries directed to the several *landwirtschaftlichen Vereinen*, or farmers' clubs, which exist, if not in every farming village, certainly in every farming community of respectable size; the other by means of a canvass of the manufacturers who sell such machines to Saxon farmers.

In 1878 an enumeration showed that there were in use in Saxony 124 large agricultural machines of various kinds having steam power, and fifteen manufacturers, not including several who are known to have sold quite largely to Saxon farmers, report that between 1878 and 1887 they sold 39 machines, making the number of steam-power machines in use at the present time, according to this very imperfect reckoning, 163, of which 117 are movable and 46 stationary machines.

The idea of obtaining more complete information by soliciting answers from the farmers' clubs was found to be impracticable and was abandoned. There are 480 of these clubs in Saxony, not counting those organized to promote interest in special branches of agriculture and horticulture; it was found that the number of clubs was so great, the boundaries of the club districts so indistinct, and the organization of some so imperfect that it would be better to adopt the other plan and address inquiries to the manufacturers. Upon investigation this, too, was found to present difficulties because of the large number of firms and individuals scattered over a great territory, who have sold agricultural machines in Saxony, and because of the disinclination of many to furnish precise facts and figures. But the attempt was made, and, incomplete as are the results, the showing made is, as before said, surprising to many Saxons, and quite astonishing to those who have had no special opportunity to examine the subject.

Of 230 manufacturers, large and small, domestic and foreign, the question "How many agricultural machines and large implements have you sold to the farmers and authorities of Saxony within the last ten years?" was asked. Of this number only 43, or a little less than one-fifth of the whole number, returned specific replies. Among those who did not respond at all or failed to furnish precise information are several concerns whose business with Saxon farmers has been large, including a Saxon mowing-machine manufacturer, a large general agricultural manufacturing concern of South Germany, and the establishment of Rudolf Sack, of Plagwitz-Leipzig, which, from a small beginning in 1856, claims to have become in 1886 the leading plow-manufacturing concern in the world. The facts and figures supplied by the 43 firms and individuals referred to are found in this table:

Kind of machine.	No.	Kind of machine.	No.
Mowing-machines	1,270	Machines for cutting turnips	3,430
Horse-rakes	870	Mills for grinding and crushing	1,000
Hay-turners	290	Thrashing-machines worked by steam and water power.	226
Machines for sowing seed	1,860	Thrashing-machines worked by horse-power.	4,360
Machines for planting potatoes	12	Thrashing-machines worked by hand	880
Machines for harvesting potatoes	790	Implements for transferring power from previously existing steam-machines to thrashing	270
Machines for spreading manure	150		
Hoeing-machines (for hoeing rows)	140		
Skim plows with more than one share	600		
Cultivators and root-cutters	420		
Meadow-harrows			
Sorters			

date of his establishment in business, until January 1, 1886, he sold to all parts of the world, chiefly to Europe and South America, as follows:

Kind of machine.	No.	Kind of machine.	No.
Drill-machines	15,640	Plows for taking out potatoes	5,210
Hoeing-machines	3,640	Plows for taking out turnips	1,280
Deep-culture plows	18,150	Subsoil plows	4,270
Universal plows	116,720	Plows for hilling corn, &c	5,150
Plows with more than one share	22,120	Grubbeos and root-cutters	3,140
Side-hill plows	1,670	Harrows, &c	1,790

Mr. Sack adds that in 1886 his sales included 30,000 plows of all kinds, but does not say how many of these were sold to Saxon farmers. As lately as 1870 his business was confined almost exclusively to Germany, but last year he had so developed his foreign trade that nearly 60 per cent. of his sales were exports. He began business in 1856, with Saxon trade almost exclusively; in 1876 only 15 per cent. of his sales were to Saxony; in 1886 only 7 per cent. In the latter year he says he sold 2,100 plows to Saxon farmers, and avers that his total sales of agricultural machines and implements to them in that year exceeded the sales of his competitors in ten years.

Mr. Sack also supplies a table, based upon the most complete information he could obtain, showing that there are in use in Saxony an average of 1 steam thrashing-machine for every farm of 100 hectares (1 hectare equal to 2.471 acres); 1 horse hay-turner for every farm of 90 hectares; 1 horse-rake for every farm of 65 hectares; 1 potato-harvester for every farm of 60 hectares; 1 cultivator for every farm of 60 hectares; 1 side-hill plow for every farm of 40 hectares; 1 hay and straw cutter for every farm of 40 hectares; 1 root-cutter for every farm of 35 hectares; 1 drill-plow for every farm of 30 hectares, and 1 horse thrashing-machine for every farm of 30 hectares. This calculation having been based upon a low estimate of the number of machines sold and in use is considered a long way within the limit of fact.

To show that the average number of modern machines in use in many sections of Saxony is larger than the general average, a number of statistical tables are furnished. For instance, the Farmers' Club of Zittau reports that in the twelve farming villages to which its membership is confined there are in use 208 cultivators, 237 hay and straw cutters, 194 root-cutters, 148 common thrashers, 135 horse thrashers, 40 side-hill plows, 38 mowing-machines, 34 drill-plows, 24 horse-rakes, 2 horse hay-turners, 1 steam thrasher, and 50 other machines of various kinds. This is equal to 1 cultivator for every farm of 10 hectares; 1 hay and straw-cutter for every farm of 8 hectares; 1 root-cutter for every farm of 12 hectares; 1 common thrasher for every farm of 20 hectares; 1 horse thrasher for every farm of 25 hectares; 1 mowing-machine for every farm of 39 hectares; 1 drill-plow for every farm of 39 hectares; 1 horse rake for every farm of 40 hectares; 1 hay-turner for every farm of 280 hectares.

and 1 steam thrasher for every farm of [illegible] at Reichenau, makes a similar

turners, 4 drill-plows, 4 cultivators, 6 hand thrashers, 7 water-power thrashers, 30 root-cutters, 35 horse thrashers, and about 150 other machines of various kinds.

A manufacturer of agricultural implements who canvassed this and neighboring sections lately reported to his firm: "The farmers are so well supplied with machines and utensils that we must look elsewhere for a market for our machines."

Several farmers' clubs report that in their neighborhoods there are more mowing-machines and drill-plows in use than there are farms, while of steam plows and thrashers there are but few, because one of each of such machines does the work of several farms.

According to the latest statistics available from the office of the Saxon minister of the interior, there are 154,158 farms in Saxony, and only 18,801 large agricultural machines in use. The farms are divided as to size as follows:

Size of farm.	No.	Size of farm.	No.
0.2 to one hectare	56,020	50 to 100 hectares	806
1 to 2 hectares	21,464	100 to 200 hectares	526
2 to 5 hectares	29,881	200 to 500 hectares	225
5 to 10 hectares	17,826	500 to 1,000 hectares	6
10 to 20 hectares	18,437	Over 1,000 hectares	1
20 to 50 hectares	8,966		

That is to say, the claim is that of the smallest farms, viz, 0.2 to 1 hectare of land each, 0.014 per cent. are supplied with modern agricultural machines; of those of from 1 to 2 hectares, 0.159 per cent.; of those of from 2 to 5 hectares, 1.45 per cent.; of those of from 5 to 10 hectares, 11.27 per cent.; of those of from 10 to 20 hectares, 41.41 per cent.; of those of from 20 to 50 hectares, 77.05 per cent; of those of from 50 to 100 hectares, 92 per cent.; those of from 100 to 200 hectares, 95.82 per cent.; those of from 200 to 500 hectares, 97 per cent.; above that size, 100 per cent.

These figures certainly make a much better showing for the Saxon farmers than people who have traveled over the country but who have not specially studied the subject have supposed; but it should not be taken for granted that there is not in Saxony at present an opportunity to sell improved agricultural machines. Much of the machinery and many of the implements in use and called "modern" would excite the risibilities of a wide-awake American manufacturer or a Western farmer.

There ought to be a good market here for American machines and utensils, in spite of all difficulties in the way, but there will never be until our manufacturers are prepared to go to work in the same careful, plodding, but energetic way that the Germans have worked to secure the large trade which they now control in South America, Central America, Australia, and the East. They must not expect, no matter how excellent their machines, to build up a trade here by now and then making a great splurge, or wholly by advertising in trade newspapers, or by the spasmodic efforts of a few traveling agents. The value of judicious advertising in first-class trade journals, American and foreign, which have a circulation and standing

watch-trading stamp, whose aim is to entrap some confiding farmer into signing a note under the impression that he is merely signing a receipt or an agreement, but men of character and ability, having a thorough acquaintance with the German language, a complete knowledge of the uses and advantages of American machines, and a firm belief that they are superior to all others. Such men, well paid, would take great pride in their work and would in due time accomplish very important results.

The Bureau of Statistics at Washington shows that in ten years over $6,000,000 worth of American agricultural machines have been sold in Germany. Probably most of the sales were made to the farmers of Bavaria, Thuringia, Baden, Wurtemberg, and the Rhine country, certainly a small proportion to Saxony. Intelligent, systematic, persevering effort on the part of our manufacturers would have made the figures nearer ten than six millions.

It is a mistake for the great agricultural-machine establishments of the United States to establish general agencies for all Europe in London. Germany is fast becoming independent of England in every way, and Germans would rather deal directly with Americans than indirectly through Englishmen.

Consul Lang, some time ago, made the suggestion that a permanent exhibition of American products and manufactures be established in Hamburg; an excellent idea, and one which the Germans have adopted in several parts, and profited by. If one of our largest agricultural-machine manufacturers would send over a thoroughly competent man, establish him in Berlin with a stock of manufactured machines for exhibition, and give him authority to select able assistants to be located in the chief commercial city of each of the German states and principalities, I believe that the sale of American machines and implements could be doubled in the next five years.

It is a great compliment to the ingenuity and practical skill of American workers that nearly every important agricultural machine manufactured in Germany, and especially those whose praises are extolled the highest, are patterned after American machines as closely as can be without infringement of patent rights. But though they can be sold cheaper than the American machines they are not nearly as good. Take the best American thrasher, for instance; it is much lighter than any made in Germany, or any other European country; it has greater capacity, and in thrashing and cleaning grain will do nicer work than the best German machine. These machines are fitted with every attachment demanded in foreign countries. What is said of the lightness, capacity, and economy of the American thrasher may be said with truth of our portable and traction engines, mowing machines, binders, plows, cultivators, &c.

So many practical machines are invented and put on the market, every week, almost, in America that it is difficult to keep run of them. Some have never been seen in Germany, even by wealthy proprietors who carry on an immense scale and profess to keep a sharp watch for

farmer must be convinced of is that American-made machines are durable. Everything made here is clumsy and heavy, and the idea is that it must be so in order to be durable. The farmers hear and read a great deal about the lightness of American machines and the rapidity with which they work, but they are quite uninformed as to their durability.

A young Saxon, who was born and spent most of his life in this rather behind-the-time section of it, went to the United States not long ago to "grow up with the country." He secured work in the city of New York as a clerk in an importing house, but it was too much of a strain upon his system, which for twenty years had been used to the easy-going ways of Saxon living. Within six months from the date of his departure he was back in his beloved Saxony again, and being asked why he had not remained longer in America, his answer was (if I may be allowed a free translation), "It was too —— quick for me over there."

That is the idea many Germans have of the United States and everything American—"too —— quick." They like to export their own products to the United States, and they do export them to the value of many millions of dollars annually, and their export trade is increasing rapidly. The American quickness in knowing a good thing when it is seen and buying it, especially when that thing is of German manufacture, they by no means object to; but no matter what may be said and written to the contrary, there is in the German mind an underlying suspicion of American productions which he cannot all at once get over. He reads of trains being run 100 miles without a stop; of people traveling across a great continent in eight days, living all the while luxuriously and only twice changing cars; of trains breaking through brand-new bridges or running off from one that had just been carefully inspected, then taking fire and roasting passengers to death; of toboggans that are sped for pleasure at the rate of 3 miles a minute; of boats that are sailed on ice almost as fast; of horses that trot a mile in two minutes and ten seconds, or less, and of other things, all surprising and some shocking, and his comment is like that of the Saxon youth who tested life in New York—"too —— quick."

So, my friends who make the best agricultural machines in the world, if you would build up a large trade in Germany and in Saxony, take practical steps to show the farmers that your machines have other merits besides lightness and speed, capacity and economy—four excellent qualities. Show them that they are durable.

GEORGE B. GOODWIN,
Consul.

UNITED STATES CONSULATE,
Annaberg, Saxony, March 17, 1887.

FARMING STATISTICS AND LAND INDUSTRIES IN THE DUCHY OF SAXE-ALTENBURG.

REPORT OF CONSUL MILLAR.

The extent of cultivated land in the Duchy [illegible]

plants for fodder. Among the fodder plants clover is the most important, covering no less than 7,169.6 hectares. Potatoes are planted in 7,948.7 hectares, red beets in 3,229.6 hectares, and sugar beets in 545.5 hectares; winter rye is grown in 16,162 hectares, oats in 14,726.1 hectares, summer barley in 8,351.9, winter wheat in 5,779.2 hectares, summer wheat in 1,167.8 hectares, summer rye in 716.7 hectares, vetches (a species of pea) in 636.8 hectares, peas in 595.1 hectares, beans in 94.2 hectares, lupins in 11.7 hectares, and winter barley in only 2.8 hectares.

The fertility of the land is shown by the fact that grain produced amounted to 729,449 double cwt.;* pod fruits, 12,590 double cwt.; potatoes, beets, &c., 2,074,519 double cwt.; rape, 18,895 double cwt.; clover, lucerne, &c., 1,065 double cwt., with a middling harvest. The grain yielded 957,687 double cwt. straw, the pod fruits 17,549 double cwt. dry fodder, and the hay and aftermath 388,065 double cwt. Of fodder straw 376,165 double cwt. was produced.

The total of domestic cattle in the Duchy is given as 149,148, made up as follows: Horses, 8,921; oxen and steers, 9,487; goats, 14,121; sheep, 23,325; hogs, 39,581; cows, 53,713. These are divided as follows: Eastern division: Horses, 6,641; oxen, 5,899; goats, 4,820; sheep, 6,185; hogs, 23,092; cows, 37,971; total, 84,608. The remainder: horses, 2,280; oxen, 3,588; goats, 9,301; sheep, 17,140; hogs, 16,489; cows, 15,742; in all, 64,540—belong to the western division.

The excess of sheep and goats in the western division is explained by the greater extent of pasture land, which enables every peasant to keep a few sheep and goats, whereas these animals in the eastern district are only kept by the larger farmers.

For the same reason the eastern district is richer in horses and cows, which are there extensively used for plowing and agricultural operations.

To improve the breed the local agricultural societies are now introducing cattle for breeding from the Alps, previous experiments in that direction by individuals having turned out satisfactorily.

Fruit is an important factor in the income of the Altenburger farmers and peasants. Every village is surrounded by carefully cultivated orchards, and along most of the roads fruit trees have been planted, which in coming years will yield rich crops. It is reckoned that there are about 1,000,000 fruit trees in the Duchy. Half of these are plums and damsons (*Zwetschen*), 150,000 apples, about the same number of cherries, 100,000 pears, and about 5,000 walnuts. A poor harvest yields 50,000 double cwt., a good one 100,000, and a rich harvest more than 200,000. The income of the Duchy from its orchards is consequently very considerable, even when prices are depressed. Reckoning the double cwt. of pears at 4.20 marks (1 mark = 23.8 cents), apples 7.30 marks, plums 7.20 marks, cherries 12.70 marks, walnuts 24 marks, a good harvest yielded as follows:

Kind.	Number.	Yield.	Value.

The improvement of the culture of fruit is watched over by the Society for Fruit Culture, one of whose objects is the introduction of winter pears, which bring a higher price in the market than the earlier varieties, which will not keep.

An important branch of industry is the production of *Braunkohlen*, a sort of peat, for fuel. The diggings are chiefly in the eastern district, and are both underground and surface. There are forty-nine such diggings in the eastern district, and the output last year was 827,955 tons,* an increase of 6,952 tons on the previous year. The output brought 1,527,190 marks; 769,276 tons were sold outwards; the remainder was consumed in the Duchy. In the western district there are only three diggings, which produced 1,215 tons. The total number of persons employed in the diggings is 1,263, viz: 514 men underground, and 608 men and 141 women on the surface.

An interesting development of a subsidiary industry, the manufacture of wooden shoes, is also reported from Schmoelln. Wooden shoes have, up till now, never found much favor, owing to their ungainly appearance and the clattering sound they produce. A factory has, however, been recently erected in Schmoelln which devotes itself to the manufacture, by machinery, of a superior class of wooden shoes, faced with india-rubber or leather, so that they make no noise, and to the unpracticed eye are indistinguishable from ordinary leather productions. These new shoes are said to find an extensive sale not only in Germany, but in other countries, particularly in the north of Europe.

SAM'L ROLFE MILLAR,
Consul.

UNITED STATES CONSULATE,
Leipsic, February 25, 1887.

THE GERMANS IN EAST AFRICA.

REPORT OF CONSUL GOODWIN.

The number of stations and agencies thus far established by the German East African Society is 13, and the following particulars concerning them, recently made public, may be of interest to many Americans:

No. 1.—Chief depot at Zanzibar, founded by Dr. Carl Jühlke in December, 1884. Here are located the headquarters of the society, and are stationed the general manager, Government architect Hörnecke, and a local manager, Herr Rühle.

No. 2.—Simaberg, an experiment station founded in January, 1885, by Count Pfeil, and enlarged and for some time in charge of Herr Schmidt, a practical gardener. At this station are a steward, Herr Nielsen, and about 25 day laborers under the direction of the steward. A large stone house for the use of the steward and visitors has been erected and a number of smaller houses and stables. At this station all the tropical and European fruits and nuts are raised in abundance, and tobacco of good quality.

No. 3.—Kiora in Usagara, near Simberg, founded by Herr Söhnge in June, 1885, now in charge of a native
day laborers are

No. 4.—Halule, in Somaliland, not far from Cape Guardafui, founded by Herr Winter in 1885, now under his charge, not yet much developed.

No. 5.—Dunda, in Usaramo, on the Kingani, founded by Lieutenant Kreuzler in 1886. There are now stationed there the lieutenant in charge, a chief gardener, superintendent of plantation, a blacksmith, and about 60 laborers, employed by the day. A store, several houses, stables, and a blacksmith's shop have been put up. About 170 acres have been planted to rice, maize, potatoes, sugar, cotton, and tobacco.

No. 6.—Madimola, in Usaramo, on the Kingani, founded in 1886 by Lieutenant (Baron) St. Paul-Illaire, and now occupied by him, a head gardener and engineer, 30 to 40 laborers employed, and 32 acres planted in tobacco, cotton, rice, and maize.

No. 7.—Korogwe, in Usambara, on the Pangani, founded in 1886 by Lieutenant (Baron) von Gravenreuth. A large area devoted to maize, bananas, cocoanuts, beans, and potatoes.

No. 8.—Usaungula, on the Kingani, in Usaramo, founded by Lieutenant von Zelewski, Herr Graham, and Lieutenant von Bülow; 30 men employed, and 50 acres planted in cotton, tobacco, beans, &c.

No. 9.—Petershöhe, near Mbusine, in Useguha, founded by Lieutenant von Anderten, in 1886, and employing two head farmers and 35 laborers. Crops, cotton, tobacco and bananas.

No. 10.—Bagamoyo, in district of Zanzibar, on the coast, founded by Lieutenant (Baron) von Bülow, in August, 1886.

No. 11.—Tanganizko, on the Kilesi, in Girinama, a station of much trade importance, founded in 1886 by Lieutenant von Anderten, and occupied by him and three assistants.

No. 12.—Hohenzollernhaven, on the Wubuschimündung, established by Herr Janke, and to be in charge of Count Pfeil, assisted by Lieutenant von Baerensprung, Dr. Spuhn, an agent and superintendent. This station is expected to become of considerable importance as a trading center.

No. 13.—Masi, on the Pangani, in Usambara.

GEORGE B. GOODWIN,
Consul.

UNITED STATES CONSULATE,
Annaberg, March 21, 1887.

MERCHANT MARINE OF GERMANY.

REPORT OF CONSUL FAY.

According to the official statistics of the German Empire, the number of sailing vessels on January 1, 1886 (no later date mentioned), sailing under the German flag was 3,471; of these 1,688, or 48.1 per cent., [illegible] years in service, whereas in 1881 only 34.5 per cent., [illegible] service; of the remain-

In the year 1885 there were launched 10 sailing vessels of 10,729 register tons; 1 full-rigged ship of 1,506 tons, and 8 barks of 8,192 tons, whereas only 14 smaller vessels were built, with a total of 1,624 register tons.

The building of steamships was limited in the same year to 23 screw steamers, with a total of 10,081 register tons, and 4 paddle steamers ot 697 tons. This shows plainly that the measurement of the newly-built sailing vessels exceeds that of the screw vessels which were constructed in the same year.

The considerable saving of large ships in the number of the crew is shown by the following table:

Capacity of vessel (registered tons).	Sailing vessels.	Steamers.
	One sailor required for each—	One sailor for each—
30 tons	11.1 tons	4.1 tons.
30 to 50 tons	14.4 tons	7.7 tons.
50 to 100 tons	16.7 tons	9.5 tons.
100 to 200 tons	22.7 tons	14.6 tons.
200 to 300 tons	28.9 tons	19.8 tons.
300 to 400 tons	32.5 tons	25.8 tons.
400 to 500 tons	35.7 tons	30.2 tons.
500 to 600 tons	39.3 tons	33.2 tons.
600 to 800 tons	43.9 tons	37.4 tons.
800 to 1,000 tons	52.3 tons	41.5 tons.
1,000 to 1,600 tons	60.3 tons	39.5 tons.
1,600 to 2,000 tons	66.5 tons	28.3 tons.
2,000 tons or over	72.1 tons	25.4 tons.

According to this statement about 9 sailors are requisite for a sailing-vessel of 200 to 300 register tons, but a vessel five times the size, namely, 1,000 to 1,600 tons, does not require five times as many men, only 22 being the required number.

If one considers the savings of large vessels in the crew, in the construction of the hull, in the rigging, repairing, &c., it is explainable that in our time of low freight rates these large vessels still leave a profit and, in consequence of it, the building of them has not ceased, notwithstanding the large number already in existence, but is still going on.

The large vessels, as already stated, pay a small percentage on the present rates of freight, whereas the smaller ships cannot compete with them without being the losers, and at the present time there is no probability of an advance in the tariff, which is poor consolation for shipowners.

Should there be an advance, the cargoes would rapidly decrease, partly because a great many goods cannot bear a higher cost, and partly because the railways are constantly on the lookout to increase their traffic, as they are now, with the present rates, dangerous competitors.

ANDREW F. FAY,
Consul.

UNITED STATES CONSULATE,
Stettin, March 25, 1887.

GERMAN HOP CROP FOR 1886.

REPORT OF CONSUL BLACK.

Nuremberg is the center of the hop trade of Europe, and is probably the largest market in the world for this article of commerce. There is large capital invested, and the store-houses are very extensive, containing all the necessary machinery for curing the hops and putting them into merchantable shape. The chief mart is situated in the center of the city, and there are three market days per week, Tuesdays, Thursdays, and Saturdays, but during the active season, from the 1st of September to the 1st of January, large transactions are completed every day. The goods bought and sold are not confined alone to the Bavarian brands, but include those of all the German states together with the Bohemian varieties.

Quotations are, as a rule, made for 50 kilograms, a German hundredweight, or about 110 English pounds, for cash and without discount.

The weather during the early summer months of the last year was very unfavorable for a large yield, in fact fears at that time were entertained that but a small crop would be gathered; but the month of August proved so propitious with its warm days and nights that the quantity was brought up to about that of the preceding season in a majority of the districts, but the quality was somewhat injured by the very rapid growth the weather engendered.

The early reports concerning the crop in England were very favorable, but the harvest being late, the fruit, before it was gathered, was much injured by frost. While in the United States the situation was entirely changed from the previous year, and instead of having, in quantity and quality, the best crop of all hop-growing countries, it had, in the principal hop-growing sections, an entire failure.

If the harvest had turned out equally as good in all other countries as it did in Germany, it would have proved, perhaps, impossible to have found an outlet for the large amount of hops offered for sale in this market, but the wants of the United States were large, and it took from Nuremberg, during the year 1886, hops to the value of $1,900,955.80, or $1,629,650.13 more than in the year 1885. With such a customer, prices for the best brands were well maintained during the entire season, without the usual fluctuations, and show at the present time a slight improvement by reason of scarcity; but the poorer qualities have been very much neglected, and quotations extremely low, English buyers being the only ones who appear to want them.

Overproduction continues to be the general complaint, and one can appreciate how reasonable it is considering that this year Bavaria alone has over and above her wants an amount equal to about three [illegible] of the hops reported consumed by the United States in 1886.

WM. J. BLACK,

Quotations of the leading brands in the Nuremberg market for the following months.

Brands.	Middle September, 1886.	Middle October, 1886.	Middle November, 1886.	Middle December, 1886.
	Marks.	*Marks.*	*Marks.*	*Marks.*
Market hops:				
First quality	60 to 65	55 to 62	50 to 60	50 to 60
Second quality	50 55	40 50	30 45	30 45
Third quality	35 40	25 30	18 28	18 28
Mountain hops	50 75	60 70	60 80	60 85
Aichgrund hops:				
First quality	60 70	55 70	60 70	60 70
Second quality	55 60	30 45	45 50	45 50
Third quality	35 45	----------	28 40	----------
Spalt City hops	----------	150 160	150 160	----------
Spalt land hops:				
First quality	----------	135 145	135 145	----------
Second quality	75 80	105 130	100 130	----------
Third quality	60 75	80 90	80 90	80 100
Wolnzach Au (certificated)	----------	75 95	----------	----------
Halletan (certificated):				
First quality	90 95			
Second quality	75 80	*75 85	80 85	80 90
Halletan (without certificate):			80 85	60 75
First quality	75 80			
Second quality	65 70	*40 70	60 75	60 70
Third quality	45 60		40 50	40 50
Wurtemberg hops:			27 35	27 35
First quality	75 80	75 85	75 80	80 90
Second quality	65 70	45 70	50 60	50 60
Third quality	50 60	----------	30 40	30 40
Baden hops:				
First quality	70 75	65 75	----------	45 60
Second quality	50 65	45 60	28 40	28 40
Alsace hops:				
First quality	60 70	60 68	28 60	28 60
Second quality	----------	48 55		
Posen hops:				
First quality	----------	50 60	50 78	60 65
Second quality	----------	----------	33 40	33 40

* First quality.

These prices are not for 50 kilos, equal to 110.5 English pounds.

Hop yield of Germany, Austria, and England.

Country.	Acreage.	Yield per acre.			Total yield of a middling harvest.	Total yield 1885.	Total yield 1886.
		Full harvest.	Middling harvest.	Harvest 1886.			
		Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
Bavaria.							
Upper Bavaria	8, 833. 1	939	541	630	4, 740, 000	5, 060, 000	5, 520, 000
Lower Bavaria	11, 326. 3	994	586	630	6, 582, 000	7, 040, 000	7, 040, 000
Palatinate	498. 3	939	718	718	354, 000	374, 000	320, 000
Upper Palatinate	4, 646. 5	807	442	541	2, 077, 000	2, 070, 000	2, 530, 000
Upper Franconia	8, 353. 4	807	442	442	3, 923, 000	4, 070, 000	3, 750, 000
Middle Franconia	30, 720. 2	718	400	442	12, 376, 000	14, 960, 000	13, 700, 000
Under Franconia	988. 1	807	442	807	442, 000	440, 000	772, 000
Suabia	859. 1	807	442	497	386, 000	462, 000	418, 000
Total	66, 225	852	502	588	30, 680, 000	34, 476, 000	34, 060, 000
Wurtemberg.							
Neckar district	3, 885. 5	------	------	------	2, 485, 000	----------	2, 870, 000
Black Forest district	8, 440. 4	------	------	------	4, 790, 000	----------	5, 630, 000
Jaxt district	!, 291. 2	------	------	------	555, 000	----------	552, 000
Danube district	4, 907. 9	------	------	------	2, 795, 000	----------	2, 980, 000
Total	18, 525	851	530	674			
Alsace-Lorraine.							

Hop yield of Germany, Austria, and England—Continued.

Country.	Acreage.	Yield per acre.			Total yield of a middling harvest.	Total yield 1885.	Total yield 1886.
		Full harvest.	Middling harvest.	Harvest 1886.			
Prussia.		*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
Posen	5,190.2	718	497	409	2,353,000	3,204,000	2,100,000
Saxony	2,490.1	1,492	897	630	2,007,000	2,983,000	2,100,000
Eastern Prussia	1,253.2	994	541	541	696,000	993,000	696,000
Hanover	529.5	851	508	497	265,000	386,000	221,000
Hohenzollern	453.6	.....	497	541	198,000	243,000	243,000
Hesse-Nassau	401.5	1,989	994	1,050	331,500	375,000	375,000
Western Prussia	121.6	718	508	586	66,000	44,000	72,000
Pomerania	169.4	1,238	630	541	110,500	110,500	88,000
Brandenburg	219.1	994	497	541	99,000	110,500	121,000
Rhineland	112.9	994	541	630	66,000	66,000	72,000
Silesia Sleswick	36.5	1,094	630	630	22,000	22,000	22,000
Total	10,977.6	.....	610	600	6,213,000	8,537,000	6,120,000
Baden.							
Karlsruhe district	3,600	.....	807	851	2,906,000	.....	3,059,000
Mannheim district	3,200	.....	774	1,039	2,497,000	.....	2,988,000
Constance district	760	.....	851	994	640,000	.....	660,000
Rest of Baden	430	.....	851	851	364,000	.....	364,000
Total	7,990	.....	821	934	6,407,000	6,740,000	7,071,000
Grand Duchy of Hesse	124.2	1,204	586	740	77,000	77,000	88,000
Kingdom of Saxony	44.2	1,994	762	762	33,000	33,000	33,000
Rest of Germany (Meiningen, Coburg, Brunswick, Oldenburg, Anhalt)	224.6	.....	508	497	110,000	133,000	99,000
German Empire	.....	.....	.....	.....	63,725,000	72,249,000	68,926,000
Austria-Hungary.							
Bohemia	22,007.4	566	365	270	7,857,000	9,945,000	5,889,000
Styria	3,759.2	718	497	450	1,713,000	1,768,000	1,710,000
Galicia	3,350.6	807	497	492	1,547,000	1,879,000	1,653,000
Upper Austria	1,635.8	1,094	718	740	1,193,000	1,326,000	1,191,000
Moravia	730.4	1,994	541	581	387,000	442,000	423,000
Carinthia	83.2	1,094	718	670	60,000	66,000	56,000
Rest of Austria	123.6	.....	541	536	66,000	200,000	67,000
Hungaria and Liebenbergen	370.2	1,138	674	760	252,000	298,000	285,000
Total	32,060.4	.....	556	563	13,075,000	15,924,000	11,274,000
England	69,930	1,680	994	1,030	63,000,000	54,255,000	71,930,000

Countries.	Estimated home consumption.	Deficiency to be covered by import, 1887–'87.	Surplus available for export.
	Pounds.	*Pounds.*	*Pounds.*
Bavaria	10,500,000	.....	24,560,000
Wurtemberg	2,890,000	.....	9,162,000
Alsace	885,000	.....	8,538,000
Prussia	16,250,000	10,130,000	.....
	1,210,000	.....	5,861,000
	770,000	682,000	.....
		3,277,000	.....

PRODUCTION OF COAL IN RUSSIA AND GERMANY.

*REPORT OF CONSUL FAY.**

In Russia a further rise on the duty of iron is impending, and the owners of the Donetz coal mines have also the prospect that further taxes will be imposed on foreign coal.

The output of Russian coal in 1860 amounted to 10,000,000 poods, or 164,000 tons, whereas it increased in 1885 to 262,000,000 poods, or 4,360,000 tons, of which the Donetz district mined about 2,000,000 tons, the district of Perm 250,000 tons, Poland 1,300,000 tons, Moscow about 500,000 tons, and the balance in the Killo district.

Notwithstanding the enormous increase, the production of coal in Russia only amounts to $\frac{3}{10}$ of 1 per cent. of the total output of the countries named below.

According to Mr. Radzig's report, the production in 1885 in the several countries was as follows:

Countries.	Production.	Per cent.
	Tons.	
England	290, 666, 600	40
United States	204, 919, 950	28. 2
Germany	130, 073, 304	17. 9
France	34, 153, 322	4. 7
Belgium	31, 973, 324	4. 4
Austria-Hungary	30, 519, 992	4. 2
Russia	4, 360, 000	.6
Total	726, 666, 492	.....

It will be seen by the above figures that the output of the United States, with its immense area of coal fields, falls far below that of England.

PROTECTIVE DUTIES IN RUSSIA.

By so small a production of coal in Russia one would think that it is a staple article, and that the mines in the Caucasus, in the Ural, in Siberia, Turkestan, &c., could be advantageously worked; but such is not the case, as the output of the Donetz basin of 2,200,000 tons, which consists of nearly 40 per cent. of anthracite, partly remains unpurchased. In the years 1883 and 1884 15 per cent. of the output remained unsold; nevertheless several million fathoms of wood are annually burned.

In order to stop the importation of English coal a duty of 2 copecks† per pood in gold was petitioned for and granted for the ports of the Black Sea, and one-half copeck per pood for the ports of the Baltic; but this had not the desired effect. The English coal could not be displaced, and a higher duty was necessary. Three copecks were granted for the Black Sea ports; but even this duty does not displace the English coal from these ports. Now it is proposed to further raise the duty to $3\frac{1}{2}$ copecks for the Black Sea ports and 2 [illegible] the Baltic. *Probably* [illegible]

greater than is the case in the last-named countries. Russia is still very backward with its technical contrivances in mining.

Mr. Radzig is of the opinion that a further advance in the duty on coal for the ports of the Black Sea would be detrimental to agriculture in the south. Respecting a higher duty for the Baltic ports, the consumption of coal at Moscow would decrease rapidly.

At the present prices of 22 to 23 copecks per pood the consumption of coal at Moscow does not exceed 10,000,000 poods, as many manufacturing industries burn wood, and a higher duty would compel all other industries to use the same fuel, while the Donetz coal-owners would certainly not profit by it. Moscow, with surrounding country, consumes annually about 1,000,000 fathoms of wood, equal to 100,000,000 poods of coal, and the Donetz district could not only supply the manufacturers, but also the owners of houses as well, if coal could be had at reasonable prices, but high prices would induce none to make a change.

English coal, which is far superior to the Donetz coal, is difficult to place at 22 to 23 copecks, whereas Donetz coal at these prices would find no purchasers if an increased duty should be granted.

In order to augment the sales of the Donetz coal the construction of a railroad is contemplated, which will be about 60 German miles in length, the estimated cost of which is 22,000,000 rubles. Mr. Radzig is of the opinion that this road will have neither freight nor passengers to transport, and that the sale of the Donetz coal can only be augmented by the projected canal which is to connect the Azov with the Black Sea. He writes that this canal will be built by a French corporation, with a capital of 25,000,000 rubles. The Azov is very stormy, and is only navigable about sixty days in the year, this being the reason that the cost of transportation of coal from Marinpol to Odessa or Nicolajeu is high, namely, 5 to 8 copecks per pood.

The transporting of coal from Marinpol by canal would probably not exceed 3 to 4 copecks per pood, which would enable the Donetz coal to compete with the English coal.

Mr. Radzig writes that the Donetz coal, because of its bad quality, will never be able to compete with the English article at the Baltic ports, and that only by reducing the railroad freights will it be possible to open up larger markets for it.

Proprietors of coal mines are petitioning for higher duties, but they forget that thereby they ruin other industrial establishments, and that it is forsooth not the task of a government to allow one industry to be benefited at the cost of another, which would be the case if a further duty should be placed on English coal shipped to the Baltic ports.

Russia has two large manufacturing centers, namely, Poland and Moscow, with surrounding districts. The former has good coal in the vicinity, which is mined mostly by Germans. The latter uses wood, or the dearer and worse Donetz coal. The English coal cannot be obtained, because of the high railway rates and the increased duty.

GERMANY'S COAL INTERESTS.

ment to place

The quality of German coal in some respects is better than the English, particularly the Silesian product, which is considered in every respect superior. However, some mines produce coal of very poor quality.

There is no duty on foreign coal, but a bounty of 3 marks per ton is allowed on all coal exported.

Coal-miners receive from 2.50 to 3 marks per day, with no allowances excepting fuel. Even at these small wages the owners are not troubled with the so-called "strikes"; such a thing is not known. However, they are not satisfied with the pittance they receive for the hard labor, and may show their dissatisfaction in the near future, as they appear to have some sympathy from the coal merchants and others interested in that industry. For instance, I questioned one of the largest coal merchants of Stettin in relation to "strikes." His answer was, "Unfortunately, the coal miners of Germany never struck, although they had sufficient reasons for it if they chose to do so."

ANDREW F. FAY,
Consul.

UNITED STATES CONSULATE,
Stettin, March 21, 1887.

TIN-PLATE TRADE OF SOUTH WALES.

REPORT OF CONSUL JONES.

It is well, perhaps, to point out that for several years past there has been more money lost than made in the tin-plate trade in South Wales. Out of an average of eighty-two works in existence during recent years there have been no less than forty failures; and of the four works named in the Department's circular, namely, Machen, Pontymister, Pontnewydd, and Rhiwderin, three, namely, Machen, Pontnewydd, and Rhiwderin, have failed and are now standing idle. Moreover, the works at Machen and Rhiwderin have come to grief twice during the last five years.

There are a large number of tin-plate works in this district, and the area covered by the various manufactories average from 2 to 10 acres. The materials out of which the buildings are constructed are stone and bricks, with roofs made partly of stone and partly of pantiles. There are no puddling-furnaces in any of the new works, and hence no refining fires or hollow fires.

The principal material now used in the manufacture of tin plates is Siemens and Bessemer steel. Manufactories working the Bessemer material are situated at Barrow, Dowlais, Ebbu, Vale, Tredegar, Rhymney, and some other places. But the larger works, using the Siemens steel bars, are grouped around Swansea. There are, moreover, three large steel works making bars for tin plates on the Siemens principle in that district.

The number of mills in each manufactory averages from two to ten, and the average weekly output of each [illegible] engine [illegible]

sons employed is about 90 per mill. The total amount of wages paid in the works of three mills would be from £9,000 to £9,500 a year.

Siemens-steel bars are a little dearer than the Bessemer-steel bars, but not very much; the difference is about 5*s.* or 10*s.* per ton. And the price of iron, again, is a little lower than steel bars; the difference, however, is not considerable.

EVAN R. JONES,
Consul.

UNITED STATES CONSULATE,
Cardiff, March 1, 1887.

Tin and terne plate manufactures in South Wales.

[This table is based on 100 boxes, as per brand mark, 14 by 20.]

Articles.	Weight.			
	Tons.	*Cwts.*	*Qrs.*	*Lbs.*
Weight of bars, 14 by 20:				
Iron	5	17	2	12
Steel	5	17	2	12
Waste reducing bars to sheets by oxidization and pickling		4	0	0
Waste by scrap		17	0	0
Yield of tin, 100 boxes bright		2	2	20
Yield of tin and lead each, 100 boxes ternes		1	1	10
Coal and coke		1	0	0
Vitriol, black and white pickling	7	10	0	16
Palm oil		7	0	2
		1	0	

Bran, 1*d.* per box; boxes (wood), 4*d.* each; annealing pots, ½*d.* per box; machinery, wear and tear, rent and taxes, management, &c., and office help, 2*d.* per box.

The weight per box is as follows:

	Cwts.	*Qrs.*	*Lbs.*
IC	1	0	0
IX	1	1	0
IXX	1	1	21
IXXX	1	2	14
IXXXX	1	3	7
IXXXXX	2	0	0
IXXXXXX	2	0	21

The extra cost in working IX is the cost of bars used in excess of IC. For instance, IX requires one-quarter of a hundred-weight more than IC. Up to IXX workmen's wages are the same as IC; after IXX the wages are doubled.

Wages paid in the manufacture of tin plates in mills and tin-house.

Occupation.	Wages per 100.		
	£	*s.*	*d.*
Mills.			
Roller, 3*s.* 5*d.* per dozen	1	8	6
Doubler, 2*s.* 9*d.* per dozen	1	2	11
Furnace-man, 2*s.* 7*d.* per dozen	1	1	6
Behinder, 1*s.* 3*d.* per dozen		10	5
Shearer, 1*s.* 1*d.* per dozen		9	0
		7	0
		4	6

Occupation.	Wages per 100.		
	£	*s.*	*d.*
Grease boy, 1*d.* per box		8	4
Rubbing		6	6
Dusting		5	6
Assorting		7	2
Reckoning and weighing		0	9½
Boxing		4	0
Laborers		4	9½
Engineer (see above).		4	0
		2	8

The same wages are paid in all, or nearly all, the works in this district, as the workmen belong to the union, or Tin-Plate Workmen's Association. There is some difference in the first hands, such as roll-turner and tin-house overman. I have not been able to get the exact sum paid at any one particular works throughout; but these are the ruling prices in all the works in my district. The explanation of one works paying and the other not paying is to be found in the management and construction of the works, and also in the brands, &c. The cost of wages per box amounts, at the present day, to 2*s.* 4*d.*, very nearly.

Cost of manufacturing 1,500 *boxes C*, 20 *by* 14.

[One week's make of three mills.]

Materials and expenses.	Weights.	Cost per ton.	Amount.	Cost per box.
	T. Cwt. Lbs.	£ *s.*	£ *s.* *d.*	*s.* *d.*
Steel bars	88 4 13	4 10	396 18 6	5 $3\frac{1}{2}$
Coal	112 10 0	5	28 2 6	$4\frac{1}{2}$
Castings	----------	----------	9 7 6	$1\frac{1}{2}$
Sulphuric acid	5 7 16	3 5	17 8 2	$2\frac{3}{4}$
Tin	2 0 20	104 0	208 18 7	2 $9\frac{1}{2}$
Stoves and gas	----------	----------	12 10 0	2
Palm oil	0 16 8	28 0	22 10 0	$3\frac{1}{2}$
Rent, rates, and taxes	----------	----------	3 15 0	$0\frac{3}{4}$
Annealing-pots	----------	----------	3 2 6	$0\frac{1}{2}$
Wooden boxes	----------	----------	25 0 0	4
Trade expenses and management	----------	----------	7 16 3	$1\frac{1}{4}$
Wages	----------	----------	174 19 5	2 4
			910 8 5	12 $1\frac{3}{4}$
Less shearing	13 0 0	2 0	26 0 0	$4\frac{1}{4}$
			884 8 5	11 $9\frac{1}{2}$
Add carriage to Liverpool, 12*s.* 6*d.* per ton				$7\frac{1}{2}$
Add free-on-board charges at Liverpool				$0\frac{3}{4}$
Net cost, delivered free on board, Liverpool				12 $5\frac{3}{4}$

Tin plates are usually sold less 4 or 5 per cent. for cash in fourteen days.

WHITE LEAD MANUFACTURE IN BRISTOL.

REPORT OF CONSUL LATHROP.

WAGES.

There is in the west of England but one plant for the production of white lead proper; by which I mean the carbonate, produced by the ancient Dutch process. It is unnecessary for me to enter into any detailed description of so well known a process, so I will only mention that the appliances in this particular works are all of a very old type, and that a proportion, that would be unusual in the United States, of the work is done by hand labor. Wages nominally are 58 cents per day, but a system of piece-work prevails, which differs from those in use elsewhere, and which is claimed to be advantageous for both employer and laborer. A day's work for four men is held to be the setting of one complete layer of each of the materials that enter into the stack, viz, the tan, the acid, the lead, and the flooring. If three men [illegible] they receive the pay of [illegible]

in this deleterious occupation. In the grinding and other departments day wages are paid, averaging all round, including the stackers, $4.85 per week. It is this cheapness of labor which has prevented the utilization to a larger extent of mechanical methods.

COST OF PRODUCTION.

On an average, it is found that 18 cwt. of pig lead will produce 1 ton of white lead. Pig lead in this market is to-day worth $65 per ton; hence there is metal to the value of $58.50 in a ton of white lead, while the expenditure for acid and tan amounts to about $2.16, and for taxes to 48 cents. The interest on capital invested in plant and on that idle during the completion of the slow process of manufacture approximates $3.90 per ton of white lead, and the expenditure for labor is about $8.84. Other expenditures, including renewal and depreciation ot plant, cost of barrels, &c., aomunt to about $4.10 per ton of white lead, though this includes nothing for salaries, as in the particular case under consideration the firm have a large staff of assistants engaged in other branches who attend to the white-lead business. The following recapitulation shows approximately the prime cost of a ton of white lead in Bristol:

Metallic lead	$58 50
Acid and tan	2 16
Wages	8 84
Interest	3 90
Taxes	48
Other items	4 10
	77 98

These figures are presented with some diffidence, as they do not purport to be more than a rough statement.

The price of white lead, unground, is about $80 per ton, so that there is little or no margin at present prices.

SOURCE OF MATERIALS.

The cheapness of spent tan is a considerable advantage to the Bristol white-lead manufacturer, and, owing to the number of tanneries, there is a certain and abundant supply. The pig lead used comes either from Germany or else is domestic in its origin. It is essential, of course, to the quality of the product that the pig should be as nearly chemically pure as possible. The slightest trace of copper or silver will seriously deteriorate the white lead. The British and German smelters being in advance of other nations in the practice of their art, their product is largely used by European white-lead makers. For purity the most regular and certain of the English pigs are held to be the W. B. and Snail Beach. These rule something above ordinary prices, and, particularly W. B., are hard to get at present. The metal corroded in Bristol is mostly smelted in Bristol, and comes, or a considerable part comes, from

sale dealer; but the grinder is obtaining each year less of this intermediate business, and the manufacturer is selling more and more of the ground stuff. Dry white lead is worth to-day about $80 per ton. Pure white lead ground in oil sells for about $100 to $110 per ton, with ninety days' time to an unexceptionable buyer. From this maximum price the stuff can be sold down to $50 per ton; the difference in price simply indicating the increased proportion of sulphate of baryta or heavy spar that is introduced. Barytes has no body. On the other hand it absorbs no more oil than the lead, nor does it change color, nor does it, like other adulterants, reduce the coloring matter of the lead. Hence, when not intermixed in excess, it can perhaps hardly be called an adulterant, and some grinders introduce a small percentage into all their white lead, averring that a ton of the mixture at $95 will accomplish all that a ton of the pure at $105 can do. This seems to be the only substance generally used to mix with white lead; though it is certain that if a buyer demanded white lead of the grinder at, say, $50 the ton, there would be considerable whiting in the mixture. But any buyer who pays a fair price can get a fair article, and if he pays a high price he can get a pure article. The different grades of white lead on the market are indicated simply by numbers; No. 1 being pure, No. 2 having a small proportion of barytes, and so on down to No. 5, there being as a rule five grades on the market. The thousand and one fancy names sometimes used to indicate the different grades are unknown here.

THE LEWIS-BARTLETT PROCESS.

The American "Lewis-Bartlett" process for subliming lead has been within the past two years introduced into Bristol, and there is a considerable production of pure sulphate and oxide of lead which seems to be a satisfactory substitute for the carbonate, though it meets with considerable criticism. It is charged against this new pigment by practical painters, first, that it is off-color and has a yellowish tinge; second, that the body is not equal to that of the carbonate; third, that it requires more oil; and, fourth, that it will harden under water, or if not covered by water will absorb moisture from the atmosphere and harden. These complaints were made by several, and I communicated them to the secretary of the new company, who answered:

> One must always allow for a degree of prejudice. I have many times proved that in color we fear no one. A thorough, and, at the same time, a *scientific*, test for covering will disprove what they say. As to its requiring more oil, I think there is some mistake here. A painter when he receives the lead in "paste" will find it does not require quite as much oil as English lead. *In some instances* it does harden under water, but it is no difficulty to keep it under oil. The lead-colored lead is particularly suited to all classes of iron work, as no acid is used in manufacturing and the fear of setting up rust is done away with.

The works of this new company are advantageously situated a few miles from Bristol, having direct railway communication with the interior, and also by water both with the interior and with the ocean. It is not necessary for me to give any detailed description of a process well known in America, and therefore I pass on to the product. Whether from prejudice or because the outturn is really inferior, the new company has not been able, so far as I can [illegible] remunerative

the present depressed price and comparative dullness of the trade, it seems unlikely that we could offer such advantages as would encourage an export trade to this port in this commodity.

LORIN A. LATHROP,
Consul.

UNITED STATES CONSULATE,
Bristol, March 22, 1887.

Importation of lead into the United Kingdom for the year 1885, and the ports into which imported.

Ports into which imported.	Lead ore.	Pig lead and sheet lead.	Lead manufactures.
	Tons.	*Tons.*	*Cwt.*
London	2,927	62,268	3,223
Liverpool	3,416	10,008	13,809
Bristol	883	845	.....
Chester	220	1,442	.....
Folkestone	.....	.....	40
Gloucester	.....	50	.....
Harwich	6,683	.....	564
Hull	.....	18,214	209
Llanelly	.....	.....	.....
Newcastle	.....	111	.....
Newhaven	.....	2,844	.....
Plymouth	.....	6,336	.....
Shields, North	243	.....	.....
Shields, South	12,365	2	.....
Southampton	1	.....	19
Swansea	.....	15	24
Weymouth	.....	505	2
Other ports of England	.....	2,588	10
Leith	.....	60	38
Glasgow	.....	790	105
Grangemouth	.....	.....	.....
Dublin	.....	.....	.....
Total	26,738	108,012	18,100

Importation of lead into the United Kingdom for the year 1885, and the countries whence imported.

Countries from which imported.	Lead ore.	Pig lead and sheet lead.	Lead manufactures.
	Tons.	*Tons.*	*Cwt.*
Sweden	6	136	.....
Germany	463	9,218	14,501
Holland	218	5,822	2,135
Belgium	29	773	70
Channel Islands	1	11	.....
Franco	891	1,585	1,147
Portugal	106	.....	.....
Spain	324	76,556	40
Italy	6,690	.....	.....
Greece	2,302	8,147	.....
Turkey	1,375	601	.....
Algeria	9,854	.....	.....
Australasia:			
West Australia	624	.....	.....
South Australia	1,029	77	.....
	56	6	.....
	819	.....	.....
	276	.....	207

Production of lead ore and silver therefrom in the United Kingdom in the year 1885.

Countries.	Dressed lead ore.	Amount of lead obtainable in smelting.	Amount of silver obtainable from the lead.	Value of ore at the mines.
England and Wales:	*Tons.*	*Tons.*	*Ounces.*	
Anglesey	.....	32	3,800	.....
Breconshire	20	14	116	$632 00
Cardiganshire	2,072	1,535	19,954	88,292 00
Caermarthenshire	793	595	3,459	28,615 00
Carnarvonshire	198	150	197	6,861 00
Cornwall	241	160	2,500	9,737 00
Cumberland	2,768	2,127	15,400	108,498 00
Denbighshire	1,321	979	5,042	49,633 00
Derbyshire	4,561	3,407	.....	177,568 00
Devonshire	3	1	.....	87 00
Durham	11,929	8,499	64,395	406,367 00
Flintshire	2,108	1,601	14,012	87,086 00
Isle of Man	6,868	5,094	132,315	360,208 00
Montgomeryshire	955	726	6,521	40,065 00
Northumberland	4,351	3,194	4,614	131,721 00
Pembrokeshire	1,439	959	9,776	49,005 00
Shropshire	2,529	1,959	.....	94,376 00
Westmoreland	1,579	1,095	14,245	53,789 00
Yorkshire	3,129	2,229	.....	98,497 00
Total for England and Wales	46,864	34,356	296,346	1,791,037 00
Total for Scotland	4,316	3,243	22,726	188,693 00
Total for Ireland	122	88	1,448	3,844 00
Total for the United Kingdom for 1885	51,302	37,687	320,520	1,983,574 00
Total for 1884	54,485	40,075	325,718	1,954,167 00

The amount of lead obtainable in smelting has been reckoned as 95 per cent. of the amount indicated by the dry assay; thus, in the case of an ore containing 80 per cent. of metal by dry assay, the actual yield has been taken at 76 per cent.

In calculating the quantity of silver obtainable from lead ores the amount of silver in ores containing less than 3 ounces silver per ton of ore has been omitted, as in most cases it is not extracted; and it has been assumed that, on an average, one-fourth ounce silver remains in each ton of desilverized pig-lead.

Quantity of lead produced in the United Kingdom, the quantities imported and exported, and the amount left for home consumption in 1885 *and the previous years.*

Items.	1884.	1885.
	Tons.	*Tons.*
Lead produced from British ores	40,075	37,687
Lead imported and lead obtained from foreign ores	132,829	129,402
British and foreign lead exported	37,631	42,169
Available for home consumption	135,273	124,920

MANUFACTURE OF WHITE LEAD IN VENICE.

REPORT OF CONSUL JOHNSON.

HISTORY.

In a report on the state of trades and industries (*arte e mestieri*) of the city of Venice, presented in the year 1773 to the special
or board of trade (*deputazione*

Later on, in 1840, Pietro Bizaglio, of Venice, established a factory of some importance and at great expense, adopting processes already tested and improved in other localities. He employed about 45,000 kilograms of lead imported from abroad and 125,000 kilograms of sulphate of barium from Bergamo and the Tyrol. In a short time, however, he was constrained to abandon the undertaking, finding that he could not sustain the competition of factories already established in Carinthia.

The process first employed was that of bending plates of lead into a spiral in such a way that about 1 inch of space remained between the circumvolutions. These spirals were then placed vertically in vases containing strong vinegar. This when exposed to a moderate heat gave off an acetic vapor which attacked the surfaces of the spiral plates and gave a rapid oxidation. The oxide (carbonate) of lead thus obtained was then formed into small cones, and after being fired by exposure to a current of dry air, formed the white lead of commerce.

The method in use afterward, that is, when the manufacture existed in Venice in 1840, was to form the lead into broad thin sheets by casting it when melted into molds which gave it the proper shape and a scaly surface. These sheets were then inclosed in wooden cases and placed over basins containing a stratum of withered and decayed grapes, called "*cibibo*" moistened with a little water. This moisture, when exposed to the heat of stoves properly disposed, sent its acetic vapor into the cases already mentioned containing the leaden plates, and arranged on cords, as articles from the wash are hung out to dry. In these cases, after being hermetically closed for about three months, the oxide (carbonate) of lead was collected, care being taken that in falling it should not amalgamate with the mass of grapes below. The oxide of lead was then mixed with sulphate of barium and a little gum arabic in other vessels in which were prepared the various qualities of white lead known in common here as the "Dutch," "Genoese," "Venetian," &c.

The quantity of white lead produced annually when it was fabricated here, *i. e.*, after 1840, averaged 82,103 kilograms. Before that epoch it is impossible to form a reliable estimate of the annual production, the importance of the factories being unknown.

There exists at present no manufacture of the article either in the city or province of Venice.

MARKETING THE PRODUCT.

A market for white lead does not now exist in Venice. It is found only in localities where the article is produced, as Genoa, Naples, &c. It is dealt in, however, by the color merchants.

The fabrication of white lead was limited to the production of its several qualities in cones and in powder. It was also, as at present, ground in oil or water, or unground.

White lead, as already stated, was manufactured of different qualities; of these eight are recognized as distinct in commerce, with characteristics varying according to the mode of preparation. There is first white lead; then silver or Kremser white, which is the pure [illegible] tablets, and which should [illegible]ed with

Genoa; "Dutch" (*d'Olanda*), that of Holland, &c., and at present the name varies according to the origin and amalgamation of the article.

RAW MATERIALS.

The lead was obtained from Spain and Carinthia, the sulphate of barium from the quarries in the neighborhood of Trent and Bergamo. The grapes came from the Levant, and the small quantity of gum arabic was easily obtained in Venice. The prices of these materials in Venice, exclusive of precedent duties, are as follows:

	Per quintal.
Lead (pig)	$8 00
Sulphate of barium	1 60
Dried grapes (decayed)	11
Gum arabic	50

The customs duties on the same material coming from abroad are:

	Per quintal.
Lead (pig and fragments)	$0 10
Sulphate of barium	20
Dried grapes (as fruit)	2 00
Gum arabic	free.

The wages of a laborer (when the manufacture existed) was from 35 to 40 cents per day. No reliable information can be obtained concerning the product per laborer and cost of labor per unit.

So far as can be ascertained no American white lead is for sale in this market, nor has it ever been an article of import.

American white lead might be introduced here provided that for price and quality it should be found preferable to the Italian product after paying the cost of transportation together with a general and conventional customs duty of 5 francs or 96.5 cents per quintal.

H. ABERT JOHNSON,
Consul.

UNITED STATES CONSULATE,
Venice, March 15, 1887.

COCA.

REPORT OF CONSUL DU PRÉ.

I have seen so much recently written of coca in newspapers and in medical publications, that I am impelled to report what I have learned of the virtues of this product of South American forests. With leathern straps passing around their foreheads to sustain burdens of 150 or 200 pounds on their backs, I find these lithe, slender natives traversing plains and mountains with greater celerity than the mule I bestride, which travels through the livelong day 6 miles an hour. Native physicians, *élèves* of the schools of Paris, France, concur in assuring me that this extraordinary capacity for endurance of toil and hunger is to be ascribed to the use, by these *viajeros*, of coca. These learned gentlemen say that the coca of the medical dispensary is th
vated plains of Peru
coca

the original inhabitants of all these tropical countries, though its consumption is greatest in the equatorial regions of South America. It is deemed indispensable to his well being by every Peruvian. Recently the medical profession in all countries has been induced to study the strange and unique properties and effects of coca. A peculiar force producing nervous insensibility, distinguishes coca when used as a kaloid. It is administered freely to infants, and is the chief intoxicant of men and women. Youths through many days are intrusted with the care of valuable flocks of llamas, having no other sustenance than that to be found in little leathern purses containing coca and its compounds. Indians chew it constantly. Theirs, like the maxillary movements of tobacco-chewers, are incessant. From 30 to 50 graumas are consumed daily, serving, unlike tobacco, both as food and stimulant. Without coca habitual chewers cannot digest food; without it they are unable to ascend mountains, with long, rapid strides, never slacking their wonderful speed through the livelong day. They will not toil without it; without it they enjoy nothing; without it, practically, they cease to live. A traveler who has explored the mountains of Bolivia and Peru in search of gold and silver mines tells me that Indian postillions, using coca freely when driving pack-mules over the roughest roads along the Sierras, even when the "*sorocho*" prevails, outstrip well-mounted horsemen.

Most learned gentlemen, as well as miners from the United States and Europe, who have employed habitual coca-chewers in all descriptions of menial service, as well as in the mines of Central and South America, give unlimited credence to most wonderful stories told of the physical and nervous force and endurance supplied by coca. When, beneath a burden of 200 pounds, he must accompany a *caballero* 100 leagues; when he must watch many hours after fatigue and exhaustion; when an extraordinary expenditure of abnormal strength is required, the Indian only augments the quantity of coca that he consumes.

CHARACTER OF THE LEAF.

A perfect analysis, as I am advised, of the juices of this plant has never been made. Its principal element is the alkaloid "*cocoína.*" The quantity evolved from a given volume, by weight, of leaves of the plant varies with the grade of development and with the state of dryness and mode of curing the leaves. It seems that more than 0.3 per cent. has never been obtained from leaves recently dried.

Its preparation for use is a very simple process. The leaves of the plant are dried rapidly in the sunlight and then subjected to moderate compression in the purses carried by the natives.

The delicacy of the leaves of this plant is almost abnormal, and in this consists the difficulty of preserving and curing them. In its brief harvest time, during the few hours the leaves are exposed to the sun, if rain falls on them they decay instantly, losing at once their volatile [illegible] rejected by the Indians as valueless; and even after [illegible] in hot latitudes and

filling the space between the interior and the exterior cases. Fresh and well preserved it has a color and taste *sui generis*. It is then deliciously aromatic, and delightful in odors it exudes, but when its life, its electrical force, perhaps, departs, it is horrible to the taste and its odors are nauseating. When coca, a few years ago, was used by the Indians alone, 10,000,000 kilograms were produced annually.

EFFECTS OF ITS USE.

The immediate effect of chewing coca is perfect insensibility of the interior of the mouth. The immediate sensation is that which one would experience when finding that his mouth had become a great void in somebody else's head. I had a dentist apply it when extracting the roots of a molar tooth, and the effect was as described. Indians constantly using coca finally lose the senses of taste and smell. They can eat, without repugnance, most disgusting food, and drink most nauseating drafts. The sensitiveness of the mucous membrane has been destroyed.

When one goes further, and swallows the saliva impregnated with the juice of the coca leaf, a delicious sensation of warmth and of perfect blessedness pervades one's whole being, intellectual, nervous, and physical, and he is lapped in the joys of an elysium.

Taken into the stomach it certainly retards digestion, but begets no inflammation, not even when used constantly. Its action, it seems, is restricted to the nervous system.

To this healthful action of coca upon the organs of assimilation of food or beverage, and to the chemical and nervous or electrical action of coca, physicians here ascribe the perfect soundness of the teeth of the Indian *coqueros*. The oldest coca-eaters have perfect teeth. Sadly worn away they may be, but caries, of which dentists prate so volubly, is unknown.

The Indian *coquero's* (coca-eater's) capacity to endure hunger, or rather the want of food, when furnished with coca properly prepared, is surely extraordinary. Perhaps it neither supplies nourishment nor appeases hunger. It seems rather, as a scientist states, to "silence the voice of hunger" and still the yearnings of the stomach. The nerves conveying to the brain sensations of hunger or of emptiness are stilled to perfect repose. The hollow voice of the void within is silenced; it is made inaudible. Dr. Morens says, "Coca deceives hunger. If the toiling *coquero* does not eat it is because he thinks he eats." In fact as soon as the influence of coca is exhausted and the supply wholly withdrawn the Indian eats ravenously. His stomach, unlike that of the sober drunkard after a terrible debauch, at once discharges its proper functions perfectly. Coca, it seems, only retards digestion and organic combustion.

In doses of 15 to 60 grains coca produces delightful intoxication. Its joys transcend in perfect blessedness all known human delights. A sensation of lightness first supervenes; the air inhaled is zephyrs from angels' wings; there are wild imaginings and fantastic hallucinations and gorgeous visions, and then complete insensibility. It is intoxication without drowsiness, without congestion of the brain, [illegible] a sense of perfect rest. The [illegible]

induced a few Americans—white people—to test the virtues of coca as a substitute for whisky, and I am pleased to say they like it. In at least one instance, when taken in very large quantities, there followed great acceleration of pulse-beats and of respiration. There were convulsion of the muscles, persistent insomnia, suppression of thirst and hunger, and diminution of secretions of the skin and kidneys. When larger doses were administered painful sensations in the muscles ensued, itching of the skin, and feverish elevation of temperature.

It is the most potent nervine, almost, at man's disposal. Its hygienic properties are disclosed from its "physiological properties," says a Spanish M. D., who adds, that in hot infusion it is the one useful and healthful beverage one can use after dining. Especially is it commended to the feeble, to those who have transcended limits of sobriety in using alcohol. Its virtues should be tested, therefore, in inebriate-asylums. It surely calms nervous excitability of many, and, taken in small quantities, enables one to endure cold and rain and snow, and it enables one to defy great fatigue and restores the forces lost by excesses. It is popularly used for indigestion, for disordered stomachs, for hysteria, flatulency, and colic, and all forms of intestinal disorders. It is used constantly by toilers in mines, and when one reaches the mines after marching several days through forests and over mountains, sustained alone by the use of coca and maize, he is permitted to eat at discretion through four days and have perfect rest. Then he is in perfect health and "fresh and fat," says the writer above quoted.

"*Cocaismo*"—habitual intoxication by use of coca—more easily becomes habitual and incurable than alcoholism or addictiveness to opiates. Its consequences, however, are not yet wholly measured or comprehended. Excessive and constant use of this intoxicant begets, rapidly, moral and intellectual degradation and decay; steady decline is interrupted at intervals by resistless impulses to do most violent and brutal acts. The nature of the father, as perverted by the drug, is transmitted to the child, and the inveterate vice, operating through generations, is said to account for the brutality of races of Indians, the Quichas and Aimaras of Bolivian fastnesses.

L. J. DU PRÉ,
Consul.

UNITED STATES CONSULATE,
San Salvador, February 26, 1887.

SUGAR INDUSTRY OF BRAZIL.

REPORT OF CONSUL-GENERAL ARMSTRONG.

I have before alluded to the precarious condition of the sugar industry of this country, and to the suggestion made in the Brazilian Chamber of Deputies, by a prominent and influential member of that body, that [illegible] to obtain from the United States a re[illegible]ensation to reduce

some of the most prominent sugar merchants of this city), "the country is seriously threatened with the total ruin of its sugar industry." It was therefore resolved "to organize an association for the purpose of defending the important interests now in jeopardy," and I observe that one of the articles of the program of this association favors the policy of negotiating commercial treaties with sugar-consuming countries, and "especially a treaty of reciprocity with the United States for the purpose of increasing the consumption of Brazilian sugar amongst its population, since that Republic is in a position to become the principal sugar market of the world."

Brazil at present exports annually from 200,000 to 300,000 tons of sugar, corresponding to about one-fourth of the quantity consumed in the United States. It preserves vast tracts of land admirably adapted to cane culture, so that with remunerative prices and an adequate supply of labor, it could easily furnish all the sugar needed for our consumption beyond what is produced on our own soil, as it already supplies us with the greater part of the coffee which we consume. And, although the balance of trade is now largely against us and the increased consumption of Brazilian sugar would greatly augment the amount of our importations from Brazil, there can be no doubt of our ability to ship to this country merchandise at least equal in value to that which we would receive therefrom, if the Brazilian Government, to save its sugar industry from ruin, should admit our products on terms that will enable us to undersell our European competitors. This we hope to do finally in every case, but a commercial treaty, properly framed, would permit us to accomplish immediately that which must otherwise be the result of many years of toilsome and unremitting labor.

H. CLAY ARMSTRONG,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Rio de Janeiro, February 26, 1887.

THE ANNATTO BUSH.

REPORT OF CONSUL CLAYTON.

The name *Bixa*, which has been given to a genus comprising four species of tropical shrubs or small trees belonging to the natural order *Flacoustiaceæ*, is the native name of the Indians of Darien for one of the species, *Bixa orellana*.

The Brazilian name of the plant is *urucuara*, or plant bearing *urucu*, the latter being the Brazilian name of the pigment known as annatto. The name in *lingoa geral* is the same.

There are probably two species in Brazil, *Bixa orellana* and *Bixa urucurana*, the former being indigenous to the West Indies, but the two are very much alike and it is hard to say which species is grown in the Amazon Valley; probably both are found, but they resemble each other so closely that to the ordinary observer they are undistinguishable.

The species usually cultiv[illegible]

in large bunches on the ends of the young branches. The fruit is heart-shaped, about an inch long, red or greenish yellow, according to the variety, and is covered with stiff prickles. When dry it splits in two, showing the seeds in a perpendicular row on each side. These seeds, which are very numerous, are embedded in a red, waxy pulp. I have never known the plant to be met with growing wild, though one often finds it many miles from any habitation, but it always marks the site of a former house or plantation.

The two species, or perhaps only varieties grown in Brazil, only differ in the color of the flower and fruit, which in the one are pink and red, respectively, while the other has white flowers and greenish-yellow fruit. The coloring matter seems to be of the same shade in both, and I have never seen any appreciable difference between the two kinds in the quantity produced.

The tree is cultivated in the whole Amazon Valley and is always seen around the houses of the Indians. It appears to attain a great age, but never becomes very large; the trunks of the largest I remember to have seen measured about 18 inches in diameter at the base. The wood is light and considered of no value. The tree is subject to no diseases, is not attacked by insects, and birds do not eat the seeds. It grows freely in any soil and no cultivation is necessary, except to shade and keep down the weeds around the young plants until they become well established. The trees must be grown in full sunshine, for if grown in the shade they do not bloom. Propagation is in Brazil effected only by seeds, and the trees begin to bloom when they attain the height of about 10 feet, which is in about three years from the time of sowing. In a cooler and drier climate, where growth would not be continuous, a far longer time would be necessary.

There seems to be nothing in the nature of the tree to prevent its being propagated by cuttings, which would probably root readily in bottom heat, and plants so obtained, following the usual rule, would flower and fruit much earlier than seedlings. The plants also sometimes form many suckers around the parent, making a dense bush with many stems; when this occurs increase could be had by separation, and, as the roots are numerous, fine, and fibrous, transplanting would probably be easy. In Brazil the fruit matures rapidly after flowering, and is ready to gather in about two months; if gathered as soon as mature the tree at once makes fresh growth, and flowers and fruits anew. The practice, however, is to allow the fruit to remain on the tree until wanted for use; it dries, and as the capsule does not readily burst the seeds remain long in good condition. Within a few months the tree is again in bloom, and usually one sees flowers and both immature and dry fruit on the tree at the same time. With the most careless culture two full crops can be gathered every year.

The preparation of the pigment is very simple. The seeds are macerated in water until the pulp, which is readily separated, is removed. The water is then passed through a strainer made of strands of palm the seeds and fiber, and is then evaporated in the sun until is then rolled in leaves, producing cakes, pro-

of it being so used on the Amazon. An infusion of the leaves drank hot is considered by the Indians a remedy for jaundice.

An American gentleman who has explored the Amazon Valley from Pará to Iquitos, Peru, informed me that he had never seen in any of his travels any systematic culture of the *urucu*, and very little of the said article comes to this market from the territory through which he has passed. He noticed that each house or village had enough trees for the use of its inhabitants, but as far as he observed there was no disposition to make the *urucu* an article of trade. There is a small annual export from Pará which I learn comes from the Igaripe-Meri, distant about a day's voyage from this city, where there were formerly some plantations, but at present there is very little attention paid to the culture, and the plantations are neglected.

The quantity of annatto exported to the United States from this consular district during the last two years amounted to 27,435 pounds, and valued at $6,816.

ROBT. T. CLAYTON,
Consul.

UNITED STATES CONSULATE,
Pará, Brazil, March 16, 1887.

THE ANNATTO BUSH.

REPORT OF CONSUL VIFQUAIN.

The annatto (*Bixa orellana*), called by the natives *achiote*, grows spontaneously around here, but none is raised for exportation from this consular district. It has no marketable value here.

I have seen the plant, which is more of a shrub than a plant, since it grows from 5 to 6 feet high, and obtains a size of 4 or 5 inches in diameter at the stump. It is not wood, however; it is "fibrous." It bears constantly; the foliage and seeds fall off and grow again, all the year around and year after year. It seems to grow best in a sandy loam soil, but is not found above an altitude of 2,500 feet. Where it grows the temperature is never less than 70° F., and reaches 92° in the shade; in the sun, 130° F. In September last, at 12 o'clock m., I put my thermometer in the sun. It was 92° in the shade; in some ten minutes it reached 130°, and remained fixed at that point.

I have a cluster of seeds before me. Many clusters are found on the bush, and each cluster has some twelve pods, and each pod contains about twenty-four seeds. It is not as heavy as wheat, but heavier than barley. I should say it weighs some 54 pounds to the bushel. I am told that one bush furnishes very often one bushel, a most enormous yield considering the size of the seed.

The cluster of pods reminds one of a cluster of cockle-burs. It has the same color, but, unlike this pestiferous bur, it is not persistent in its adherence.

The annatto grows in a dry climate as well
least it looks as well

to their quality. The Indians use it as a defensive armor against the frisky and still more pugnacious mosquito. They crush the seeds "and anoint their naked limbs with the stuff."

VICTOR VIFQUAIN,
Consul.

UNITED STATES CONSULATE,
Barranquilla, February 16, 1887.

REPORT OF CONSUL-GENERAL ADAMSON.

Annatto is not cultivated here, but is found in its wild state in all the coast districts of this Republic, and it is not an article of commerce here.

My personal acquaintance with the plant leads me to believe that its favorite habitat is within 15 degrees of the equator on the lower lands, in a soil of sandy loam, which is well irrigated for a part of the year, and that it is hardly probable that it would thrive in California, but that it might be expected to flourish south of the frost line in Florida.

THOMAS ADAMSON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Panama, March 21, 1887.

REPORT OF CONSUL CONROY.

Annatto is a species of "red dye," yielded by the pulp enveloping the seeds of the *Bixa orelland*, a shrub which is disseminated through the whole island of Porto Rico. This shrub or small tree may be said to be here of spontaneous growth, for there is no instance of any regular plantation being established, nor of any careful cultivation being given to the plant.

The country working people are fond of having planted near their little homesteads two or three shrubs for the sake of the fruit, which they use as a condiment in coloring and seasoning their messes of rice and other food, in place of saffron or red peppers. The annatto plant in its natural or wild state is a scraggy, straggling bush, which often attains a height of 8 or 10 feet, but no doubt by proper cultivation and judicious trimming and pruning its condition and growth would be much improved, and its producing capacity would be greatly increased.

The annatto plant does not require a rich soil; it rather affects a loose soil, in which there are mixtures of clay, sand, and fine gravel, but at the same time it thrives best where it obtains a certain amount of moisture, with heat and shade.

The plant commences bearing at between two and three years' growth. The fruit is produced in clusters of small pods, covered with prickly hairs somewhat resembling the burrs of horse-chestnut, and are very numerous, so much so that a single bush or shrub will produce 100 pounds weight of fruit. The tree will continue to bear for many years without any care being bestowed upon it.

In case of any attempt being made to form a regular plantation of the annatto it would probably be expedient to sow the seeds in properly prepared beds, and transplant the seedlings when 4 or 5 inches high, during suitable weather, and plant out about 800 plants to the acre of ground.

The dye is prepared by macerating the seeds with the pods in hot water, straining out seeds and husks, leaving the subside, or pulp, to settle. The fluid being drawn off, the sediment or residuum is placed in shallow vessels and allowed to dry gradually in the action of the solar rays is detrimental, as destroying the fine coloring

province, either to Spain
merely

used by dyers for imparting a deep, but not durable or "fast," orange color to silk and cotton manufactures. As previously stated, the exportation from this island of the fruit of the annatto is quite insignificant. The current value of the article in the crude state in which it is shipped is about 4 cents per pound.

As this plant is scattered and grows wild all over the entire island without any care being given to its culture, no true estimate can be given as to the cost of its production. It is gathered mostly by women and children, and disposed of in small quantities at the shops in exchange for provisions and groceries.

EDW. CONROY,
Consul.

UNITED STATES CONSULATE,
St. Juan, Porto Rico, February 28, 1887.

CHINESE AND PORTUGUESE CUTLERY.*

REPORT OF CONSUL FOLSOM.

There has recently been exhibited in the Cutlers' Hall, in Sheffield an interesting collection of Chinese tools and cutlery, and also samples of pocket-knives most commonly sold in the retail shops of Portugal, and a brief description of the same may be of value to manufacturers of similar articles in America.

CHINESE TOOLS AND CUTLERY.

The Chinese patterns were sent here by the foreign office in three lots, viz, implements used in agriculture, from Tientsin and Shanghai; joiners' tools and edge-tools from Swatow, and cutlery and razors from Pakhoi. The object in sending these goods here was to enable local manufacturers to examine them and open up to Sheffield a new market, but the interest manifested on their part has not been great, and doubts have freely been expressed as to the prospect of making a profit at the low prices quoted for the article. Some of the patterns have, however, been copied by local firms, and an effort is to be made to compete for the Eastern trade in cutlery and razors. The attempt has been made heretofore by two or three leading firms, but without much success, for the Sheffield workman is opposed to new ideas or innovations of any sort, and objects to the introduction of patterns with which he is not familiar. Consequently he is not particular about keeping the new work up to the mark in quality, and the manufacturer is the sufferer.

These Chinese articles are finished in the roughest manner and without any regard to appearance; the only idea, apparently, being to produce a blade that will cut, and at the same time possess strength. The wooden handles of the tools and implements look as if they had been hacked out with a hatchet and no finish put upon them. But it is a mistake to suppose that articles of English or American manufacture can take their place, which are merely pretty to look at. The Chinese trade demands an article of worth and durability, and at the same time cheap in price. As one of the British representatives remarks, "Fine finish and polish are quite unnecessary, the only *desiderata* being cheapness and durability."

The razor of which

2 inches in length and 1½ inches in width, with a thick, heavy back. The handle is an ordinary twig or branch, in its rough state, in which a shallow groove is cut to receive the blade when closed. A piece of tin forms the ferrule into which the blade is riveted to the handle. The scissors appear to be roughly hammered out, and the bows are so made that they can be grasped by the whole hand. They sell at about 12 cents. A pocket-knife made of brass, with a thin welding of steel on the blade, which is of brass, is a marvel of cheapness, as the price is only 5 cents. A four-pronged hoe made of steel, with an eye welded on, is sold for 25 cents. Another hoe with an iron handle, or socket for a wooden handle, is 11 inches broad by 8 inches long, solid blade, the price of which is about 66 cents. Two picks are shown which resemble American manufactures, except in finish. The smaller sells at 25 cents, and the larger for 70 cents. In both cases the eye is welded on, and the smaller of the two is made of two layers of iron outside a center of steel. Some trowels are exhibited, square at the end and taper ing toward the tang, which is drawn out and runs into a rough wooden handle clasped by an iron ferrule. The price of one with a blade 5 inches long by 2 inches broad is 36 cents. A sickle formed from a piece of steel about one-fourth of an inch thick and 3 inches wide costs 23 cents. A few rudely-made hatchets are priced at from 21 to 35 cents each. Chisels are marked from 9 to 13 cents; and a thin, narrow sawblade sells at 12 cents. Files vary in price with the sizes, the largest being 40 cents each. Several square hammers, which look like a nut, about 2 inches square, are marked at 15 cents apiece.

The British consul at Swatow says in his dispatch which accompanied the tools:

English cold-chisels and files are very much used here already. Among the miscellaneous tools the broad hoe is universally used. It takes the place of the English, and to a great extent, with small proprietors, of the plow. The stone-cutting chisels, or pointed wedges, are used to a very great extent in this neighborhood, where good granite abounds. Their steel tips are mostly made of imported steel, and stonecutters pass half their nights in repointing and tempering the basketful of tools blunted by the day's work.

He also suggests that a market might be opened for nails and screws in his vicinity.

PORTUGUESE CUTLERY.

An interesting feature in connection with the exhibit of cutlery sold in Portugal, and sent here by the British consul at Oporto, is the fact that out of thirteen samples, but one only is of English workmanship. The rest were all made in Germany. These pocket-knives vary in price from 5 to 30 cents each, and are finished without much regard to nicety of appearance. The hafts are made of bone or horn, which are ornamented with a crescent and a heart, set in white metal. The blades are, in nearly every instance, square or razor-shaped, and the favorite brand or mark is a fish-hook. The best pattern in the lot for a model is a single-blade knife, 3½ inches long when closed, with a 2½-inch blade, bone handle, [illegible] the folds here indicated might [illegible] would

TONQUIN AS A FRENCH COLONY.

REPORT OF MINISTER DENBY.

In 1884 the French colonial possessions in Asia covered 59,964 square kilometers. As a result of the Franco-Chinese war the Republic increased this area, chiefly in Tonquin, to 149,967 square kilometers. The native population owing allegiance to the French flag shows an increase, also, through the addition of Tonquin, of 9,116,642.

This increase in territory and in population has been purchased by France at a cost, as estimated, of nearly 20,000 men, and about 70,000,000 taels in money.

China also contributes to the cost the lives of almost 100,000 men, lost chiefly by disease, and a sum of money scarcely short of 150,000,000 taels.

The natural inquiry arises as to the profit of such acquisitions as compared with the cost. The only results that can be reached are based on conjecture. It is hardly probable that Tonquin, with the poverty and want of civilization of its people, and the unsuitableness of its climate to European constitutions, will ever be to France what Holland's possessions in the south have been to her. A comparison with French Cochin-China affords the best data for an estimate of the future value of Tonquin as a producer or a market. The last return we have from there is the summary for the first six months of 1886.

The import trade, excluding treasure, was worth $7,362,000; treasure $6,368,000, of which $3,640,000 was on Government account. Of these total imports of $7,362,000 France furnished only $1,033,000 in articles for the use and consumption of foreigners. China furnishes more than one-half the remainder, and the Straits have a large share.

The export trade of the same period was $10,895,000, of which nine-tenths was rice. Of this $87,000 went to France.

This showing, though somewhat in excess of the same period for previous years, cannot be considered encouraging.

Tonquin has three times the population of Cochin-China, and is said to be more fertile. The turbulent character of its people, however, and the proximity to the Chinese provinces will necessitate for a long time to come the maintenance of a large military force and the expenditure of sums of money which will probably make the country a drain on rather than an advantage to France. It is claimed that many of the difficulties now met with will disappear on the construction of railroads, and that a great trade with Southern and Western China will follow the Red River to the sea. It is proposed to construct a line of rail from Laokai near Yunnan to Hanoi to obviate the difficulties experienced by junks in the shallow and almost unnavigable headwaters of this stream.

It is, however, incredible that Tonquin can ever be made a profitable investment of the immense sums expended.

UNITED STATES LEGATION,
Peking, February 17, 1887.

CHARLES DENBY.

COMMERCIAL IMPORTANCE OF HIOGO, JAPAN.

REPORT OF CONSUL JERNIGAN.

The commercial importance of Hiogo, Japan, is illustrated by the following tables, showing the different lines of steamers connecting it with the other ports of the world and the tonnage exported to various countries during the year ending November 8, 1886.

The number of lines of steamers actually calling regularly at Hiogo and being in communication with the other ports of the world are four: *French.*—The Compagnie des Messageries Maritimes. Mail service semi-monthly. Terminus at Marseilles. This line is extended to Havre, in France, and London.

English.—The Peninsular and Oriental Steam Navigation Company. Mail service semi-monthly. Terminus at London.

German.—The Norddeutscher Lloyd. Mail service monthly. Terminus at Bremen.

Japanese.—The Nippon Yusen Kaisha. Mail service weekly. Terminus at Shanghai. The steamers of this company are in connection with the Pacific Mail and Occidental and Oriental at Yokohama.

Besides these four companies there is another, the Kiugsiu line, German, which call regularly at Hiogo with an average of eighteen steamers per year, but do not carry passengers or mails.

The ports of call and rates of passage of the French company are as follows:

Ports of call.	Rates of passage.			
	First class.	Second class.	Third class.	Deck.
Yokohama	$16 00	$10 00	$5 00	$3 25
Hong-Kong	50 00	40 00	30 00	20 00
Saigon	150 00	120 00	60 00	38 00
Singapore	110 00	90 00	60 00	38 00
Colombo	240 00	192 00	96 00	60 00
Aden	300 00	240 00	120 00	75 00
Suez	390 00	312 00	156 00	98 00
Port Said	400 00	320 00	160 00	100 00
Marseilles	415 00	332 00	166 00	104 00

Besides the above ports the Messageries Maritimes have connections by means of small steamers of 1,000 to 2,000 tons burden, with Tonquin, Manila, Batavia, Madras, Pondicherry, Calcutta, Madagascar, Mauritius, Bourbon, Mahé, Mozambique, and Zanzibar, all connecting with the main line, some at Saigon, some at Singapore, Colombo, and Aden.

The Peninsular and Oriental Steam Navigation Company have the same service as the Messageries Maritimes, and the two boats of the Japan line call at Nagasaki via the Inland Sea.

The rates of passage by this company are as follows:

	First	Deck.

The German Norddeutscher Lloyd* have the same itinerary as the Peninsular and Oriental Steam Navigation Company and the same rates of passage money. Their steamers call at Antwerp, and at Bremen, the terminus.

The Japanese Company Nippon Yusen Kaishas having a regular weekly service to Shanghai; calls at Simonoseki and Nagasaki. The rates of passage are as follows:

Ports.	First class.	Second class.	Deck.
Yokohama	$16 00	$10 00	$4 00
Simonoseki	10 00	6 00	2 50
Nagasaki	16 00	10 00	4 00
Shanghai	35 00	22 00	9 00

The rates of freight by the various companies above named are actually as follows:

To—	Per ton of 40 cubic feet.	Per ton of 2,240 pounds.
Yokohama	$1 50 to $2 00	
Nagasaki	1 50 2 00	*$1 00
Shanghai	3 00 4 00	*1 00
Hong-Kong	2 50 3 00	$2 00 to 2 50
Saigon	8 00 10 00	2 00 2 50
Singapore	7 00 8 00	5 00 7 50
Colombo	8 00 9 00	5 00 7 00
Calcutta	10 00 12 00	6 00 7 50
Suez	12 00 13 00	6 50 8 50
Marseilles	16 00 18 00	10 00 14 00
		14 00 16 00
	£ s. d. £ s. d.	£ s. £
Havre	1 17 6 2 0 0	‡2
London	1 10 0 1 17 6	†‡2
Antwerp	2 0 0 2 10 0	‡2
Bremen and Hamburg §	1 15 0 2 0 0	1 15 to 2

* Dead weight.
† Copper or antimony, 15*s.* to 17*s.* 6*d.*
‡ For rice.
§ Same rate for Amsterdam.

Mail steamers.—The steamers calling regularly at Hiogo are, for the Messageries Maritimes Company: Meuzaleh, net tonnage 1,273 tons; and Tanais, 1,149 tons. Peninsular and Oriental Steam Navigation Company: Teheran, net tonnage, 1,670 tons; Thibet, 1,671 tons. Norddeutscher Lloyd: Stettin, 1,815 tons. The Japanese Company have no special steamers on the Shanghai line. They change according to the necessities of the service.

Approximate tonnage exported from the port of Hiogo to various countries, from November 7, 1885, to November 8, 1886.

Companies.	No. of vessels.	Hong-Kong.	Shanghai.	India and Corea.	France.	London.
		Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Messageries Maritimes	26	4,691	.....	231	1,002	1,213
Peninsular and Oriental Steam Navigation	26	7,535	.....	.....	.....	2,813
Norddeutscher Lloyd	3	280	.....	.....	.....	44
Kingsin line	18	3,335	.....	.....	4,412	.....
Shire line	14	1,387	3,793	.....	356	3,809
Ben line	7	59	3,250	.....	.....	2,361
Nippon Yusen Kaisha	57	.....	16,527	1,614	.....	.....
Sundry steamers via China to America	22	771	9,625	.....	.....	
America transshipment at Yokohama	53					
China Merchants' Steam Navigation						
Sundry steamers						

Approximate tonnage exported from the port of Hiogo, &c.—Continued.

Companies.	Germany.	Australia.	America.	Sundry ports.	General tonnage.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Messageries Maritimes	.....	.....	.....	10	7, 147
Peninsular and Oriental Steam Navigation	.....	.....	.....	74½	10, 422½
Norddeutscher Lloyd	515	3	.....	27	869
Kingsin line	9, 855	.....	1, 273	192	17, 794
Shire line	2, 177	.....	635	.....	12, 795
Ben line	15	.....	.....	342	6, 320
Nippon Yusen Kaisha	.....	.....	9, 725	.....	18, 433
Sundry steamers via China to America	.....	.....	12, 674½	.....	20, 121
America transshipment at Yokohama	.....	.....	.....	.....	12, 674½
China Merchants' Steam Navigation	955	41	.....	1, 500	2, 591
Sundry steamers	.....	7, 305	.....	14	16, 618
Sundry steamers to Australia direct or via Hong-Kong	.....	.....	10, 951	.....	9, 062
Sailing vessels	.....	.....	.....	.....	10, 951
Total	13, 517	7, 349	35, 258½	2, 159½	145, 848

Passengers carried from November 7, 1885, to November 8, 1886.

Companies.	Arrived.	Departed.
Japanese Company Nippon Yusen Kaisha	4, 426	4, 426
English Peninsular and Oriental Steam Navigation Company	489	610
French Messageries Maritimes Company	98	410
Norddeutscher Lloyd	.....	38
Other steamers	.....	59
	5, 013	5, 556

T. R. JERNIGAN,
Consul.

UNITED STATES CONSULATE,
Osaka and Hiogo, Japan, March 3, 1887.

KEROSENE TRADE OF OSAKA AND HIOGO.

REPORT OF CONSUL JERNIGAN.

On June 18, 1886, I forwarded to the Department a statistical table* showing the extent and value of the trade in kerosene oil at this post from 1882 to 1885, inclusive. I am now able to bring the tables down to a later date and to show the extent and value of the trade in this article for the year ending December 31, 1886. During this latter year there were imported 1,216,239 cases. This is more than were imported in the table above referred to. The de-

deliveries and stocks, &c., but the following table will serve in that respect for all practical purposes:

Brand.	No. of cases.	Brand.	No. of cases.
Atlantic	886, 163	Chester	48, 839
Weaver	20, 000	Torchlight	35, 000
Stella	35, 000		
Reereess	191, 237	Total	1, 216, 239

It will be seen from the above table that the largest importations and consequently deliveries have been on the Atlantic brand. This brand has ruled in the markets for some time, but whether its supremacy will remain in the future depends, of course, upon the markets, the supply, the respective values, and the caprice of buyers, conditions which render it difficult to speak of a favorite brand except for the time being.

The prices during the year under consideration ranged from $1.71 to $2.05 per case, being an average value of about $1.82. The highest prices were obtained during the latter part of the year 1886, produced by temporary shortness of stocks, and without this favorable condition prices would probably have not exceeded $1.75 per case. There is no oil imported into Japan that can compete with American oil. In fact I am not aware that oil from any country except America has been imported at this port. Petroleum in Japan is not scarce, but Japanese petroleum has not yet been sufficiently exported to be important.

It can be stated without reserve that the prospects for the trade in kerosene oil are good. Consumption gradually grows in Japan, and with general improvement in business, which is now progressing, a large demand for this now indispensable lighting material may be fairly reckoned upon. The oil trade is not entirely free from hindrances and annoyances, but no trade is entirely exempt and favored with perfect immunity. If any hindrances, &c., they are chiefly due to the Japanese tendency to combine in rings in dealing with foreigners and to prevent direct dealings between the importer and any distributor not in the ring. But this hindrance to free trade, which seems inseparable from all Japanese commercial affairs, is not peculiar to the oil business, and is gradually being counteracted by the publishing of trade and market reports.

If there is no unfavorable legislation on the part of the Japanese Government in imposing higher duties, American oil will continue to maintain its supremacy in this market.

The cost of loading oil here is, for storage, insurance, and interest, about 3 cents per case (of 10 American gallons) per month.

UNITED STATES CONSULATE,
Osaka and Hiogo, Japan, February 24, 1887.

T. R. JERNIGAN,
Consul.

RUSSIAN PETROLEUM.

REPORT OF CONSUL BISSINGER.

I present in as complete a form

Exports of Baku oil products during first six months of 1886.

TRANSCAUCASIAN RAILWAY VIA BATOUM.

Countries to which exported.	Petroleum.	Lubricating oil.	Naphtha residue.	Total.
	Gallons.	*Gallons.*	*Gallons.*	*Gallons.*
In January, 1886	3,469,065	1,096,950	----------	4,566,015
During five months:				
Algeria	250,000	----------	----------	250,000
Belgium	487,750	181,000	179,300	848,050
Germany	25,000	106,500	37,700	169,200
Egypt	485,000	----------	----------	485,000
Great Britain	1,040,000	1,738,000	60,000	2,838,000
France	1,458,400	363,315	297,150	2,118,865
Greece	320,000	----------	----------	320,000
Italy	1,761,000	228,500	785,300	2,774,800
Austria-Hungary	2,819,730	130,000	1,730,000	4,679,730
Roumania	2,566,220	10,950	12,000	2,589,170
Spain	300,000	----------	----------	300,000
Turkey	4,961,280	1,250	----------	4,962,530
Russia	3,384,240	336,925	91,550	3,892,715
Total	23,327,685	4,193,390	3,193,000	30,714,075

ON THE CASPIAN SEA.

Countries to which exported.	Petroleum.	Naphtha residue.	Naphtha.	Lubricating oil.	Solar oil.	Benzine.	Total.
	Gallons.	*Gallons.*	*Gallons.*	*Gallons.*	*Gallons.*	*Gallons.*	*Gallons.*
Astrachan	44,428,335	79,866,200	8,674,845	55	117,115	60,000	133,146,495
Caucasian ports	228,375	449,185	237,100	----------	----------	----------	914,715
Transcaucasian ports	646,015	2,450,715	----------	----------	----------	----------	3,096,730
Persia	440,035	106,230	174,725	----------	----------	----------	720,990
Total	45,742,760	82,872,330	9,086,670	55	117,115	60,000	137,878,930
On the Black Sea via Batoum	23,327,685	3,193,000	----------	4,193,390	----------	----------	30,714,075
Grand total	69,070,445	86,065,330	9,086,670	4,193,445	117,115	60,000	168,593,005

By way of comparsion, the following table, disclosing the exports to Astrachan for the first six months in the years 1884 and 1885, is instructive:

Articles.	1884.	1885.
Via river Volga:		
Petroleum	*Gallons.* 35,327,825	*Gallons.* 47,749,005
Residue	70,146,620	85,940,360
Crude naphtha	5,892,740	7,074,380
Lubricating oil	2,320,520	2,679,990
Benzine	207,525	23,600
Total	113,895,230	143,467,335

According to this exhibit the exports via Astrachan the first half of [illegible] greater than in 1884, and but little less than the correspond- [illegible] exports via Batoum were appreciably [illegible] movement and in-

ket for its products than in past years, and that notably the Russian Baltic provinces participated to a marked degree in the increased foreign export trade.

The facts and figures adduced in the preceding tabular statements would not perhaps in themselves be of great moment to the American petroleum interests, in so far as their relations to mere quantities is concerned, if the products of the Baku wells were simply confined to local consumption and to a nominal foreign trade; but they assuredly appear to me to assume a decided significance when the ultimate destination is considered, inasmuch as that indisputably indicates the real distribution of the products of that industry.

Much has been said and written about the progress this inferior rival to a participation in the trade with the United States in European and other foreign countries has made, and it must surely be conceded that if figures mean anything at all, these exhibits clearly demonstrate that Russian petroleum has found its way into every country in Europe and Asia where it is worth while competing for its market.

The astonishing low price for the raw naphtha at Baku and the great facilities for cheap transportation have made its ready introduction into the markets heretofore entirely controlled by the United States comparatively easy, and that the Russian Government is disposed to do its utmost to encourage the export trade has just again been evidenced by an order promulgated by a committee of the imperial ministry, of September last, decreeing that "tin plates," imported into Russia with the declared intention of being re-exported in the shape of cans filled with kerosene, are admitted free of duty, provided a bond equal in amount to the duty is deposited.

Whether the hold upon the different countries where its low price has forced a market for Russian petroleum is to be permanent, or whether the objection to its bad packing, inferior quality, and consequent increased liability to danger will materially impede its general use, are matters that can only be conjectured for the present.

ERHARD BISSINGER,
Consul.

UNITED STATES CONSULATE,
Beirut, February 25, 1887.

THE RUSSIAN PETROLEUM COMPETITION IN HOLLAND AND IN JAVA.

REPORT OF CONSUL ECKSTEIN.

HOLLAND.

The long-delayed, and, in petroleum-trade circles, much-spoken-of first tank-steamer cargo of Russian petroleum arrived in this port on or about the 17th of February. It consisted of a quantity equal to about 7,000 barrels, which was quickly—in less than twelve hours, as I have learned —transferred by being pumped from the tank- at the wharf, *th*-

Consumers, it is stated to me, seem to be satisfied with the quality; and the sales and deliveries, which are estimated to have amounted to about 2,000 barrels in about three weeks' time, would, it is held, have been much greater if the difference in the price between it and the American article had been more significant, as without this there would seem to exist no inducement on the part of the mass of consumers in this country to abandon the use of the American product.

Up to the present the agents here make no offers for future delivery. The manner or condition in which sales and deliveries of the Russian oil are being made, are described to me to be as follows:

American barrels are exclusively being used for the purpose. When filled by the agents, prior to sale, and when desired by purchasers, the barrels are previously repainted, the bodies of them blue and the ends white. After having thus effaced the Standard Oil Company's brand, they (the Nobel Brothers' agents here) place their brand upon the barrels. This, however, is not done in all cases, as purchasers who wish it, or who themselves furnish the barrels, are having them filled and delivered without any alteration, repainting, or restamping of them.

Thus it would appear that while Russian petroleum is not likely to be carried and imported into Holland under the American flag, it would seem to be, to a certain extent, at least, the intention that it shall sail, as it were, under our banner, after being landed or while on shore.

I am not prepared to say whether these practices involve any wrong, legally speaking, whilst, considered from the moral standpoint, they appear to me of questionable commercial propriety, to say the least.

I would further not hesitate to remark that it would be more "noble" if the Messrs. Nobel Brothers would cause their petroleum to be sold and delivered in barrels of their own or agents' manufacture, here as well as elsewhere.

JAVA.

Up to the present the American product held undisputed, peaceful possession of the colonial petroleum market, but according to most trustworthy information which I have just received, a Russian petroleum war, as it were, has been declared, the colonies are now threatened with a regular oil invasion, and it would seem to beboove American producers and exporters of the article, and who are more especially interested in the trade of that section, to muster their forces and make ready to meet the enemy.

If reports speak correctly, as I believe is the case, an arrangement has been perfected between Messrs. Nobel Brothers and one of the principal Java houses (Maclaine, Watson & Co.), the latter agreeing to introduce into the Dutch East India colonies the oil to be shipped to them by the former, in tin cases, and establish as great a demand and trade for same as possible.

A first shipment, consisting of 60,000 cases, is said to be now under per steamer, via Suez Canal.

article is said to be from 10 to 15 cents

I am assured, however, that there exists general doubt whether the "packing" of the Russian oil will turn out or prove to be equally as good and satisfactory as that of the American always does.

Experience had, in this respect, at Bombay, resulted, as I understand, greatly to the disadvantage of the Russian product.

It is believed that in consequence hereof there will be more or less difficulty to dispose of extensive quantities of the oil in the beginning, whilst at the same time it is expected that ere long the required improvements in the manufacture of the tin cans and wooden cases will be accomplished in Russia.

If, then, the difference in the price of about 15 cents per case will continue to exist it will soon be made to appear that Russian petroleum will henceforth be a formidable competitor against the American in the market of Java. Such, at least, is the opinion of parties here who are thoroughly competent to judge the matter.

It is further represented to me that the firm of Maclaine, Watson & Co., above mentioned, with its branch houses at Soerabaya (Fraser, Eaton & Co.), and at Samarang (MacNiel & Co.), is one of the most prominent commercial corporations in Java, and has, on account of its far-reaching connections, special and great facilities to introduce this new petroleum, and create a demand for it, if possible.

Another circumstance mentioned to me, and which is considered likely to operate in their favor, consists hereof: In former years, and for a long period of time, only the "Devoes" brand of petroleum could be sold to consumers of the article, but more recently the mark "Stella" was imported and more or less successfully placed upon the market, so that the mass of the public is no longer, as of yore, prejudiced in favor of the use of just one particular mark.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, March 24, 1887.

RUSSIAN PETROLEUM IN JAVA.

REPORT OF CONSUL HATFIELD.

For the benefit of our purchasers, refiners, and shippers of petroleum oil, I would say that a cargo of refined Russian petroleum is now on its way to this island. This fact has only become known within the past few days, since when I have gathered that the importers are a firm established at Soerabaya, that the shipment is a trial consignment on part of the shippers, and comes by steamer; this last point is, however, not yet known certainly. It is not generally expected that this oil can compete with our product as yet, but the fact that the attempt is being made to gain the Java market is significant of the intentions of the Russian producers; if attended with success, or hopes of it, for the near future, other outlets in the East will also no doubt be sought [illegible]

the least. The fact that the shipment is understood to be a consignment means that its owners, in anticipation of ultimate results, are not unprepared to encounter a possible loss in order to gain a foothold, this being a sacrifice usually attending the introduction of a new article upon an untried market.

The import of refined petroleum oil from the United States into the Dutch East Indies during 1886 foots up the very respectable figures of no less than 2,643,109 cases, of which to Batavia 478,825 cases; Samarang, 493,639; Soerabaya, 1,089,976; Cheribon, 105,685; Fayal and Pekalongan, 227,486; other ports not in Java, such as Macassar, Padang, Bandjermassin, &c., 247,498 cases; figures which need no comment in showing the value of this island as a consumer.

OSCAR HATFIELD,
Consul.

UNITED STATES CONSULATE,
Batavia, February 4, 1887.

TOBACCO MONOPOLY IN PORTUGAL.

REPORT OF MINISTER LEWIS.

On the 29th instant there appeared in the Government journal a royal decree declaring all laws then existing affecting the collection of custom duties on and the manufacture of tobacco in this Kingdom as abrogated on and after the 27th of January, 1887. I annex a copy of the decree referred to, translated from the *Diario de Governo* of the 29th instant.

This is the preliminary step towards the re-establishment of the tobacco monopoly which was abolished in 1863, and the reasons given for this radicial change are to be found in the preamble to the decree. This is all that is officially promulgated on the subject, but it is understood that the monopoly will be offered to public competition at an upset price of $5,000,000 yearly for a term of twelve years, upon which sum a very large advance is anticipated. This sum is somewhat larger than the present yearly revenue collected through the agency of the custom-houses, and it is the belief of the Government that a greatly increased revenue can be secured to the treasury, with less cost of collection, by farming the monopoly as now contemplated.

This decree has the force of law until the new Cortes will assemble, about the 1st of April next, when this and other so-called dictatorial measures will be submitted for approval or rejection by that body and upon which the fate of the present ministry will depend.

E. P. C. LEWIS.

[Inclosure. Translation.]

conformity with the advice of my council of ministers, to decree the following provisions:

ARTICLE 1. Prepared tobaccos in the custom-house stores at the date of this decree and those which on that day were in transit to the ports of the continent may be cleared at the existing rates of duty until the promulgation of the law which will alter the present regimen.

ARTICLE 2. All tobacco not under the conditions of article 1, and which may be presented for clearance at the custom-house will pay the duty of 3,500 reis kilo, for cigars, and other kinds 4,000 reis kilo.

Solus. The excess of duties fixed by this article over the duties as now existing will remain on deposit to await the decision of the legislative power.

ARTICLE 3. Are declared null from the date of this decree the licenses established by decrees 21st October, 1863, and 22d December, 1864, granted to such manufacturers who may have closed their work more than three months ago, and as a consequence of this fact the cessation of the sale of their products.

ARTICLE 4. Until the definite decision of the legislature the establishment of new manufactories will not be permitted, nor the modification or enlargement of those already existing, or the reopening of those which have suspended production for more than three months.

ARTICLE 5. The Government will give to the Cortes an account of the present decree.

The president of the council of ministers and the ministers and secretaries of state of the different departments will cause this decree to be executed.

Palace, 27th January, 1887.

THE KING.

Countersigned by all the ministry.

LISBON, *January* 31, 1887.

HORSE-BREEDING IN FRANCE.

REPORT OF CONSUL DUFAIS.

I herewith transmit an extract and translation of a book on horse-breeding in France just published by Baron de Vaux, which may perhaps be of some interest to horse-breeders in the United States. The picture it draws of the insufficiency of serviceable horses may be overdrawn. I give it, therefore, for what it is worth.

Not many years ago Colonel Bridgland, then United States consul at Havre, with the special permission of the State Department, imported horses from the United States for the French cavalry service, which, by a serious advance in freights, subsequently became unprofitable. The time may have come again when an equally enterprising man could perhaps advantageously resucitate this trade.

F. F. DUFAIS,
Consul.

UNITED STATES CONSULATE,
Havre, March 22, 1887.

HORSE-BREEDING IN FRANCE.

[Translated from "Les Haras et les Remontes" (Studs and Remounts) in France, by Baron de Vaux. F. Rothschild, editor, 13 rue des Saints Pères Paris.]

During the last twenty years horse-breeding in Normandy has undergone a characteristic transformation. The breeding of the large, heavy carriage ho[illegible] ing been profitable enough, as well as f[illegible]

tions, and the success of the exportation of such horses to the United States is turning the heads of the horse-breeder. North America, Germany, Italy, Spain, and Portugal are greedy buyers of the draft horse, whose quality for this special purpose is incontestable; the prices paid have led the coolest heads astray. The race, by aiming only at size, has undergone a change, the blood is being infused in an inferior class of horses and the result is rather to be regretted.

The great error committed hitherto in the raising of horses lies in the fact that an improvement is relied upon only by the action of the stallion; small farmers have the deplorable idea that any mare is good enough for reproduction, and they generally only keep such mares as are not wanted by the trade or the army. Thus it is that in the best breeding districts at the stations where stallions are serving, 60 per cent. of the mares are unfit for proper reproduction. Hence the result that the horse for army purposes is getting more and more difficult to find; in fact the remounting officer meets only with horses which have been rejected by other buyers, although sometimes willing to concede something to the requirements of the service.

The following data will give an idea of the present condition of things, and they may be relied upon:

The officer of the first remounting district, comprising the depot of Paris and four more in Normandy, received an order in 1885 for 6,387 horses for cavalry service, to be furnished by end of July, 1886. Notwithstanding all his efforts he could not find in this the richest part of France more than 3,532 head, simply for the reason that they did not exist.

Certain details in Normandy show that of 549 horses of the line required, only 247 could be found, and then only by making concessions in the requisites; neither could light horses be found, as in an order for 140 only 97 came forth; 10 horses were wanted for the military riding school, but not one fit for this special service could be obtained; 1,102 light draft horses for the army were wanted, and only 660 could be found. These figures speak volumes. The heavy cavalry horse is disappearing; the light cavalry horse does not exist, and the solid, wiry, and tough artillery horse is getting scarcer and scarcer.

These remarks regarding Normandy apply with equal force to the whole of France. The following notes are taken from the last report of the Superior Council of Studs: The number of mares served by stallions belonging to the Government was 131,351; the number of those served by stallions belonging to other owners, but approved of by the commissioners, 60,306, making a total of 191,658, which, at the rate of 60 per cent., would produce 114,994 fillies. Admitting a death-rate of 50 per cent. for four years there would remain the number of 57,497 horses produced by superior stallions and by mares of above the average quality. This number is quite insufficient to furnish the 30,000 horses required for the army in ordinary times, by commerce, and for private use, let alone the 60,000 which would be wanted by the army alone to change from a peace to a war footing, and 25,000 more yearly in case of a prolonged war.

There are about 36,000 communes in France, each of which could possibly furnish one horse in war times.

This grave state of things is not to be ascribed to a scarcity of horses in France; on the contrary, this country has relatively the largest number of horses of any country in Europe; her soil is one eminently favorable for breeding them; the most recent statistics giving the number of her horses at 3,000,000, but amongst them all, in times of peace, neither the 30,000 wanted for army, commerce, and private use, nor in war times the 60,000 required to uphold the national honor and to guard the frontier, can be found This is the incontestable fact.

The fault lies in the carelessness and want of foresight of the horse-breeder and the insufficiency of the means and resources employed by him.

THE CLYDESDALE HORSE.

REPORT OF CONSUL UNDERWOOD.

[illegible] Clyde in the vi-

seldom seen now except in the feet, and in the dapples which are almost universal upon the animals.

There are some dappled grays, but this color is not one chosen by breeders. There are also many dappled bays; but the most beautiful, in my judgment, are the dark dappled browns. They often have a white star in the forehead, and sometimes one or more white feet. In size they are generally large, sixteen hands and over, and often weigh nearly 2,000 pounds.

The head of the typical Clydesdale horse is characteristic. The jaw is broad, ending in a not very fine muzzle, with large open nostrils. The eyes are large, sagacious, and mild. The forehead is broad and full between the eyes, but tapers upward toward the ears, which are long and active.

The efficiency of the Clydesdale horse is due largely to his quick movements, and it is the formation of his oblique and massive shoulder which gives the long quick step for which he is so much valued. His endurance, especially upon paved streets and hard roads, is due to the extraordinary solidity of his legs and feet. The forearm is broad, seen from the side; the knee is broad and flat; the sinews below strongly marked; the pasterns sloping, and the foot very large.

Doubtless the fringe of hair from the knee to the fetlock joint has little to do with the strength of the leg, but this marked feature is never absent from the best Clydesdale horse. It is by the fineness and abundance of this long silky fringe and of the fetlock tuft that good judges estimate the purity of blood and the enduring qualities of the animal.

The back and ribs of this horse are not always in keeping with his other good points; and in selecting, care is to be taken to choose one whose back is not too long or hollow, and whose ribs are well rounded and well set. The hind quarters are low set, the thighs muscular, the hocks broad and solid, the sinews firm, and the pasterns sloping. The long fringe of silky hair stands out from the leg.

The intelligence of these animals is well known. They are guided either in the plow or cart without reins, and when called on to exert themselves, do it with a will, as if they were actuated by conscience.

In the streets of this city great numbers are employed, and their size, movement, docility, and fine condition attract the attention of strangers. Those owned by the Caledonian Railway Company, and used in transporting goods to and from the station, are by far the finest working horses I have ever seen.

Large numbers of Clydesdales are sent to the United States for breeding purposes, as the official returns of this consulate show.

FRANCIS H. UNDERWOOD,
Consul.

UNITED STATES CONSULATE,
Glasgow, August 11, 1886.

EXPORTING HORSE STOCK FROM NORTHERN MEXICO.

REPORT OF CONSUL WOESSNER.

According to

fore the stock can be loaded for shipment; the result is that buyers are forced to offer stock-raisers a very small price for their animals, or else return home without making any purchases.

At present the exporter from this city must pay on each head of horse stock, males, 68¾ cents; females, $1.37½, which includes the State tax, payable at the office of the *jefatura de hacienda*, and the city tax to the city treasurer, separately. The charges are as follows:

	Cents.
On each male:	
State tax	31¼
City tax	37½
On each female:	
State tax	62½
City tax	75

The stock from this section in size is small, the mules especially so, but are very tough, and when put to work generally give good results.

The shipping rates, per the Mexican National Railway, from here to Laredo, Tex., are as follows (United States currency): For one car-load, $43.85; for five car-loads, each $42; for ten car-loads, each $37. Shipments of five and more car-loads the railroad carries through to Nuevo Laredo, Mexico, where it is necessary to employ a custom-house broker to take out the export permit, which costs $1.50 for the lot properly stamped. Only properly licensed exporters and importers can transact business at the custom-house there. Charges in Laredo, Tex., are (import duties, 20 per cent.), for example:

10 horses, at $10 Mexican money=$100 Mexican, at 79 cents=$79 United States currency, at 20 per cent	$15 80
Import permit for the lot	20
Broker's fee for making custom-house entry, say	2 00
State inspection on 50 head or less, per head, payable to the county inspector, 50 head or more, each	05

The estimated duties must be paid or secured by cash deposit before a permit can be issued for the importation of the stock into the United States, and the importer must present to the collector of customs a consular invoice properly certified to by a United States consular officer at or nearest the place where the animals are purchased. When the value of the stock is less than $50, a consular invoice is not necessary.

Animals specially imported for breeding purposes, and not for sale, may be imported free of duty; the requisite oath in such cases must be made before the consular officer at or nearest the place in Mexico where the stock is purchased, and be duly certified to by such officer; this document has its own form, and takes the place of the regular consular invoice. The collector of customs in Laredo, Tex., also must be satisfied that the animals are intended for breeding purposes, and not for sale; he, therefore, calls for such evidence from the importer as will satisfy him, and if such evidence is not produced, it is his duty to prohibit the importation unless the duties are paid.

Some importers have declined to pay State inspection fees, upon the ground that the State has no right to impose any additional tax on im- [illegible] of State fees have not been pressed in many

only be made by the person who imports them for that purpose. Animals cannot be imported free of duty which are intended to be sold for breeding purposes.

If an importer undervalues his stock so that, on inspection by the custom-house officer, the value is advanced 10 per cent., an additional duty of 20 per cent. is imposed as a penalty.

JOHN WOESSNER,
Consul.

UNITED STATES CONSULATE,
Saltillo, Mexico, March 15, 1887.

THE DEPRESSION OF TRADE AND AGRICULTURE IN MEXICO.*

[Translated from the Mexican Economist of November 12, 1886.]

In the number of the Economist of November 5 we occupied ourselves in analyzing superficially the report presented to the secretary of fomento by the Messrs. Crespo and Barroso. We now have before us that signed by the chief of department of agriculture, Don Luis Salazar, and we observe with pleasure that this work is not inferior to the other. In the first place, he has taken care to study the general causes which have produced the mercantile crisis, and the depreciation of silver in Mexico, as well as in the rest of the world, and to suggest measures which may favor the development of production, especially the mineral production, in our country. The second report is confined to the study of the conditions of certain articles produced by agriculture, and to indicate what means must be taken to extend their cultivation and to increase the amount of exportations.

Agriculture, excelling in its multiple productions other sources of public wealth, is scarcely developed in our rich and vast territory. To protect and encourage this branch with liberal franchises would be an inducement and stimulus for the investment of foreign capital in the exploitation of extensive districts to-day unproductive.

The author directs his attention to the protection which ought to be given to those products whose export to foreign countries is already manifest, notwithstanding the multiple obstacles they have encountered in the beginning of their establishment, and divides those products into groups and in the order in which, in his conception, they should receive a protection sufficient for their development, as follows: (1) Breeding of animals, and skins; (2) textiles, henequen, ramie, pita of Oaxaca, ixtle, lechugilla, maguey, organo, jute, flax, cotton, and silk; (3) tobacco and coffee; (4) fruits, wines, and vanilla; (5) woods and zacaton.

Mr. Salazar attributes great importance, and not without reason, to the industry of raising animals and to the traffic in skins, and in order to demonstrate his idea presents abundant data, among them the prosperity which Texas has reached, on whose territory it is calculated there exist 5,000,000 head of cattle, representing a capital of $100,000,000. He believes, at the same time, that if the States of Sonora, Durango, Chihuahua, Nuevo Leon, Coahuila, Tamaulipas, and Vera Cruz, with the rich lands they possess, and in spite of the scarcity of water, should encourage the breeding of herds, methodizing the immoderate exportation which has been made, a success will be obtained in this branch similar to that which Texas enjoys. To obtain that end the author of the report states:

"An industry which contains conditions so favorable for their undertaking can, with little effort, be urged forward by the Government. In fact, it all consists in dividing up in a suitable manner the immense extensions, measured or being measured, forming ample farms, suitable for the breeding of animals, provided naturally or artificially with water by means of artesian wells or tanks, and watched by bodies of troops that are constantly in movement, as a cautionary means of security.

"Said farms under similar conditions can be offered to intelligent colonists, on an equitable basis and for easy acquisition.

"If it were possible to select people for th[illegible]

"In the business of breeding animals, the larger the scale that it is carried on the more productive it is; but this requires the possession of extensive possessions, difficult to be attended to by the vigilance, capital, and work of one individual alone.

"From this arises the utility of establishing great societies or companies, whose interests insure economy in the management of the greatest number of animals with a greater profit as a consequence.

"It is now time to put in practice the means of protection, which economically may be thought convenient, to favor the breeding of cattle in Mexico, since the fabulous increase that the production of this branch reaches day after day in the United States will exhaust in a short time the lands sufficient for the maintenance of the flocks, and the surplus will overflow into our frontier States, which possess abundant and cheap pasturage. Let protection be given, and foreign agricultural capital will not delay to cross the river Brabo to establish itself on our territory. The inconsiderate exportation which has diminished our herds can with facility be converted into a current of importation.

"As respects the traffic in hides and skins, I have here the means of facilitating its development.

"As is logical, the impulse which the branch of furriery, may receive will depend, in the first place, on the increase which the breeding of cattle may have in Mexico. Besides the immunities from taxation, the cheapness in the freights of railroads and steamers, and the propagation of the knowledge which will serve to perfect and quicken the methods of tanning, granting premiums to those who distinguish themselves most in this branch, will be so many other stimulants to assist the greater production and exportation."

The part which Mr. Salazar devotes in his study to the textile plants, appears to us interesting. According to the data which he presents, there exists in Yucatan 823 farms producing hennequen, which have under cultivation 1,002,905 mecates, or 577,773,280 square varas. Ramie is a plant whose cultivation has been tried also in the Republic, and according to appearances the lands which offer better conditions for its culture are found in Pueblo, Vera Cruz, Aguas Caliente, San Luis Potosi, and Michoacan. Properly attended to the industry of this plant could acquire greater importance than that of the hennequen, its market value being greater and its cost of production comparatively less. As regards the ixtle, it is now employed in the manufacture of ropes, &c., but its true future will be found in its application to the manufacture of paper. It is produced in abundance in Tamaulipas, Nuevo Leon, Vera Cruz, Oaxaca, Chiapaz, and Michoacan. The lechugilla is another plant which could be used advantageously in the same manner as the ixtle in the paper industry, it being now employed only and on a small scale for bagging, packcloths, &c. The principal zones in which it is cultivated are Tamaulipas, Chihuahua, Coahuila, Hidalgo, and Nuevo Leon. The maguey has not been used as a textile material; it is believed, however, that it is susceptible of being utilized for this purpose, care being taken to cure its leaves at the appropriate period of its growth. Another important material, of which at present no use is made, is the organo, a plant which can be employed also in the manufacture of paper. Very few dates exist concerning flax. However, its acclimation has succeeded with sufficiently satisfactory results in Chihuahua, Tlaxcala, Chiapas, and Mexico. Concerning the cotton industry, we find in this report interesting data, which demonstrate the susceptibility of our country to produce sufficient for local consumption without the necessity of importing it from abroad. This plant can be cultivated and is cultivated in Vera Cruz, Tamaulipas, Sonora, Sinaloa, Tepic, Jalisco, Michoacan, Guerrero, Oaxaca, Chiapas, Chihuahua, Coahuila, Durango, and Nuevo Leon.

The following statement shows the importance of the cotton production and industry in Mexico:

Cotton gathered	kilos..	31,774,400
Manufactories of spun cotton and of cotton textures, about		.88
Probable extension of ground employed	hectares..	50 to 60,000
Value		$8,400,000
Spindles	number..	237,890
	do....	9,000
	do....	11,000
	pieces..	318,184

fices, protected by exemptions from interior and exportation taxes during a fixed period; in the gift of spinning-wheels and special apparatuses, and in the concession of premiums to those who distinguish themselves in the production and exportation by the quality and quantity of the silk elaborated.

The clime, the economical workmanship, the abundance of lands appropriated to the planting of mulberry trees, and a near market, are conditions which unite for the favorable cultivation of silk in Mexico, with little sacrifice to the nation.

Referring to the tobacco, Mr. Salazar says: "The production of tobacco in Mexico can be considered localized in the zones of both coasts, but unquestionably the cultivation offers a greater change of development in the States of Tamaulipas, Vera Cruz, Tabasco, and Oaxaca, which count upon lands, and elements already tried, and from which practically they ought to expect an opulence extending its cultivation; to increase the exportation, to-day comparatively limited."

In the region before mentioned are encountered very fertile lands, whose composition has been proved by analysis to be of superior quality to that of the lands in Havana, as in the celebrated Vuelta Abajo; here also the lands and the climate permit the cultivation of tobacco, under the conditions most favorable to give it the exquisite flavor which makes it so much appreciated throughout the world.

These circumstances, and that of the production of Havana tobacco, being every year less, as is believed, owing to the impoverishment of the lands, enable us to be the providers of Paris, London, Berlin, Russia, New York, and even of South America, where the demand increases in proportion as the Havana tobacco diminishes in quantity and quality. One single country, the United States, imports more than 70,000 quintals of leaf-tobacco from Cuba annually.

Mexico finding itself in climateric conditions so advantageous for the cultivation of good tobacco, it is now time to uniform its classes, perfecting and making them known, under their true names, in Europe and the United States.

The coffee plant is produced in Chiapas, Colima, Durango, Guerrero, Jalisco, Mexico, Michoacan, Morelos, Oaxaca, Tabasco, Tamaulipas, and Vera Cruz. To encourage its cultivation and exportation, the author of the report dwells on the following points:

The measures which are to be advised to urge on the production of coffee consist in premiums, according to the quantity and quality of said production. For the exportation it is advisable to free from custom-house duties coffee, permitting at the same time the free introduction of bags, whose re-exportation is guaranteed.

The concession of unappropriated lands under conditions of economical acquisition, and at long terms, would be a greater stimulus for those who promise to plant great quantities of coffee trees, supplying both capital and laborers for the work. Another important branch of agriculture, which can be cultivated with great profit, is the traffic in fruits. Up to the present it has been limited to reduced exportations by the Central Railroad and the maritime route, notwithstanding it is susceptible of an infinitely greater development, having a market near at hand, which would consume all the quantities remitted. In regard to this matter the author says:

"The direct encouragement of this great wealth of the country would cost very little, since the immense quantities of fruits which are produced, of an exquisite taste and unsurpassable quality, do not need great expenses in their cultivation and collection. The facility and cheapness of the ways of communication, and the free transit and exportation of them, are a sufficient protection. Indirectly, it would be advisable to stimulate this branch of production with some fiscal concessions which would especially tend to establish a perfected system of cases for the easy, economical, and convenient transportation of the fruits, and avoid the delays and obstacles to which these are subject in their passage, by official documents and certificates, and which in many cases are a mere form.

"The conservation of fruits in tin cans is another industry capable of producing by itself alone notable incomes in our mercantile movement, and the best assistance which can be lent to favor their consumption abroad is the exemption of duties of transit and exportation, and of those which actually oppress the tin plate so necessary for the cans, their re-exportation being always guaranteed.

"On this account it will be proper to favor it also by the free introduction of sacks, barrels, bags, boxes, and in general of all the objects and materials which serve to preserve and transport the national fruits, if this does not injure other similar industries established in the country, and which effectually satisfy the necessities of exportation.

"The experiments made for the exportation of fresh fruits have failed, on account of the defective packing employed. In July 1884 [illegible] time in the United St[illegible]

business the development of which it is susceptible, and which can give numerous benefits, without the inconveniences pointed out."

To resume, the commerce in fresh fruits, preserved and in sugar, offers a favorable prospect in the market of the United States, whose inhabitants consume every day greater quantities, and of which, under very advantageous conditions, can be their principal providers, by the railroads of Paso del Norte, Laredo, Nogales, and Piedras Negras, as well as by our Gulf ports and by the gulfs of the Northern Pacific of our territory.

In the same category as the fruits, Mr. Salazar considers the wines an industry which has come to acquire a certain importance, thanks to the efforts of the secretaryship of Fomento, which has liberally distributed vine shoots imported from Europe. According to the figures registered in this report, the quantity distributed has been 1,383,954 vine shoots.

Mr. Salazar says:

"It is perfectly proved that we possess appropriate lands in very considerable quantities, that, as well for their altitude above the level of the sea, or rather for their latitude, possess favorable conditions for the acclimation of the vine.

"The official reports rendered to the secretary of Fomento by the inspectors of cultivation confirm the exit reached in the cultivation of the vine in Chihuahua, Zacatecas, Aguas Calientes, and Puebla.

"But more particularly the lands of Paso del Norte in Chihuahua, and of Aguas Calientes have called the attention of the learned inspector, Hermenegildo Barango.

"In fact there are in Pas del Norte above 200,000 vine stocks, whose last crop produced 100,000 arrobas of grapes, of which only 3,000 were sold as fruit, the rest being made into white and red wines, which were consumed in the same state of Chihuahua. In Aguas Calientes the number of plants in production is calculated as 260,000."

I have before me the measures which Mr. Salazar recommends for the encouragement of this new industry.

For the present we ought not to form the illusion that we can in a short period be exporters of wines, notwithstanding that the clime and soil of an extensive part of the republic are propitious for an incalculable development of the production of the grape in quantity and quality. But the riches which result from the development of vine culture are not on that account inconsiderable, if we consider that they will enable us to reduce our foreign importations.

Besides the cultivation in a certain scale requires the conjunction of much labor of both sexes, and from this results this industry converted into a lever of colonial power.

It also gives an opportunity to other new industries, such as the fabrication of barrels, casks, bottles, corks, &c., which will add their contingent to enriching the country.

The protection which could be imparted to this branch consists, in the first place, in the immigration of colonists proved as experienced in the cultivation, whom it would suit to settle on the farms of those who already have vineyards, making special contracts with the proprietors who will guarantee, with the protection of the Government, their interests and those of the colonists.

The establishment of vineyard stations in the principal places of production of the vine will be very useful to teach pruning and culture, and the fabrication of different kinds of wine susceptible of being produced, co-operating with this to the development of the industry.

Perhaps as a medium of protection, it would be advantageous to add additional taxes to foreign wines that in Mexico are only consumed amongst the wealthy classes.

Also there could be granted, as a privilege, the free importation of machines and apparatus necessary for this industry, and also for the present an equally free importation of barrels, casks, and corks.

In the group of fruits and wines, Mr. Salazar places the vanilla, whose exportation can increase with some greater activity amongst those who cultivate it.

The exportation of fine and dye woods has been, and is even now, sufficiently active, but without doubt could be augmented if there did not exist two causes which obstruct its development.

(1) The fiscal charges that repress it, united to the heavy expenses of exportation.

(2) The excessive felling of small trees, whose exportation injures the market of large [illegible] which make almost ruinous this traffic, and [illegible] for cutting, from the

It would be advantageous not only to levy a duty of one or two dollars for each tree cut on national grounds, but also to stipulate that the cutters plant at least three trees for each one they have cut, and, finally, it would be advantageous to levy additional duties on the woods imported from abroad.

Respecting the zacaton, Mr. Salazar says:

"The zacaton is a wild plant, that is produced in abundance in Huamantla, San Andres, Chalchi comulo, Perote, San Felipe del Obraje, and many other places of the cold climate.

"The actual price in the places of extraction is from $1.75 to $1.88, and the crop can be calculated at 90,000 arrobas annually.

"The development of this plant is imperfectly carried on, and the protection which could be imparted to this growing industry would be to grant certain immunities and premiums to those who introduce machinery adapted for the gathering, cleaning, and cutting of the zacaton. In this manner without doubt we would be able to cheapen the expenses of said industry, and augment the exportation by the facility of consumption."

The learned author of the report concludes thus the ideas which he has manifested in the special paragraphs, which he dedicates to every article of traffic:

"The facility of production of our soil being recognized, and the reasons being explained which make us presume very possible our prosperity, in a period of time not very far off, by only stipulating a decided protection, which will tend to increase the production and exportation of national fruits; to condense the ideas, it is only necessary to recapitulate what are the possible measures of stimulus and protection that it would be convenient to dictate, relationed to so important branches of public wealth as are agriculture and commerce.

"It is not sufficient that nature has endowed our country prodigally with the abundant elements, which it possesses, to produce a multitude of agricultural articles, and especially those before enumerated, in sufficient quantity to supply the principal mercantile centers of Europe and our commerce with the United States. It is necessary that the agriculture and commerce of its products be protected with especial immunities, which will give inducements and security to the capitals which are dedicated to this industry.

"It is proper in the first place to recommend the observance of the decree issued in May, 1868, which expressly orders as follows: 'No State can recover duties for the simple transit of merchandise.'

"The difficulties are infinite which producers and merchants encounter in their transactions, owing to the system of interior custom-houses and excises. Undoubtedly the interior circulation, free and without hinderances, would contribute to the prosperity of commerce.

"One of the great elements for the development of public riches, and very especially for the agriculture and the commerce, is the establishment of ways of communication between the zones of production and the markets of consumption. The geography of our country is extremely accidental, and the private domain embraces extensions so extensive, that there results an almost insuperable difficulty for the transportation of effects to the principal centers of consumption and to the ports destined for their exportation.

"The Mexican Central and Vera Cruz Railway lines have already served very much to develop the general traffic; the lines not even terminated of the National Constructor, and of the Interoceanic, of Acapulco, Mexico, and Vera Cruz, also lend a useful contingent to the local movement of limited regions. But our vast territory demands in a pre-eminent manner to terminate these lines and open other general arteries of circulation, and particularly to multiply these local ways of communication, whether wagon-roads or railroads, whose preservation should be under the charge of the town corporations, or, better even, establish economical railroads of 60-meter width (system of Decauville or any other whatever), for the transportation by cheap freight of the products of each region, and constructed with funds proportioned by the federation, the states, and private persons, within the true meaning of the railroad concessions, it would be useful to reduce the actual tariffs of the working lines, which will really favor the commercial traffic of importation.

"In the railroads, whose concessions for whatever motive have to be modified, and especially in the new concessions which are granted in the future, it is proper to foresee the immunities which ought to be granted the fruits for exportation, although for it the subventions would have to be more liberal.

"As far as possible, and without injury to th[illegible]

"For a period as extended as possible, and after suitable study, it would be well to see if the excessive charges on the importation of certain effects and apparatus, which serve for the improvement of agriculture, can be removed.

"The employment of coverings, boxes, bags, &c., suited for the preservation and economical transportation of national products being particularly necessary to conserve the credit of our exportation, perhaps it would be useful to employ the concession ordered in the tariff, permitting the free introduction of boxes, barrels, sacks, bags, and tin plate necessary for the object indicated, the re-exportation being always guaranteed in a sufficient time, if it does not injure new industries that may be established expressly for the construction of good coverings, boxes, bags, cans, &c.

"It would be advantageous to induce the governments of the several states, studying their peculiar interests, not to impose inconsiderate taxes on the new agricultural interests which may be established, neither on those already established, to the end that they should receive the increase of which they are susceptible.

"The foreign capitals which dedicate themselves to the development of agriculture ought to be attracted by concessions of national lands, bestowed in every case at moderate prices, and to be paid for on long terms, facilitating thus their acquisition.

"Equally, some national lands, suitably divided into different plantations and economical constructions, can be distributed, all made by contract, to receive foreign agricultural colonies, whose numbers prove they have knowledge and elements of work. That distribution of lands, once producing, will facilitate notably the establishment of colonists, and that these can in a relatively short period of time indemnify the Government for the value which they have received.

"Premiums can be created for those who, in virtue of previous regulations with the Secretary of the Interior, supply with water the regions devoid of it, whether by means of artesian wells or tanks, and whose premiums will be in proportion to the volume produced, the scarcity of water in the locality, and the superficial extension benefited. In the premiums granted to those who construct tanks the relative amount of the capital invested will besides be taken into account.

"It would be proper to grant premiums to agriculturists who, in a certain scale, produce articles appropriate to be exported. These premiums can consist of those ordered in the law of colonization to colonists and companies, or in the donation of machines perfected for cultivation. Also, with the premiums, the exportation ought to be stimulated in a certain scale, granting in a determined grade pecuniary or honorary recompenses to those who distinguish themselves with this motive. Said premiums could be for a fixed quantity, or for interest on the capital invested, payable in both cases with paper denominated 'warrants in favor of the exportation.'

"The Government would regulate the form and proportion in which said paper would be received, whether in the payment of certain taxes, or of duties of importation, which foreign effects originate introduced into our ports.

"The establishment of warehouses of deposit for foreign merchandises, conformably to what is ordained in the tariff of maritime custom-houses, would be one of the most important advantages that the commerce could obtain for its development. Equally it would be proper to establish them for merchandises exported.

"Exportation will be much favored by exempting from the duty of tonnage not only steamers and sailing ships which arrive with ballast in our ports to load national effects, but also said sailing ships which come with cargo and return exporting our products. This concession is of vital importance to our exportation, if it is taken into account that on one part the enormous port duties, and on the other the insecurity of our anchorages and bays, increase enormously the freights of the products of the country exported. At the greater part of our ports of exportation steamers do not arrive with freight, for the reasons before expressed, and because the delay in the act of loading and unloading causes prolonged and expensive sojourns. It is advantageous, then, to grant the concession which is indicated, to the sailing ships, making it known in the most ample manner in Europe and the United States.

"The establishment of permanent museums of our national products in the Mexican consulates abroad would be the most efficacious and economical manner of making known the vital forces of production of our country.

"By this means we would be enabled at the same time to combat the very frequent way of presenting the Mexican products as proceeding from other countries."

"The establishment of agricultural banks for

"The farmers do not like to ask for money lent, since according to their mode of thinking the application for credit is a sign of difficulties and entangled business.

"If they see themselves obliged to contract a debt, even though it may be for an advantageous operation, they conceal it as much as they can, although they have to pay the secret at the price of a more elevated interest, as though if it were known they would lose the estimation of the rest. This prejudice created in the mind of the farmers is easily eradicated, with only time and the exact knowledge of the risk incurred, with the concurrence of foreign capital. Also, the merchants and the artisans had in another time the honor of not working but with their own capitals.

"The personal condition of the farmers, taken as a mass, is inferior in instruction to that of the merchants and artisans; they are less apt to comprehend and manage the paper, as of trustworthy value, which is the indispensable instrument of credit. But ways remain open to the farmer to guide himself commercially, if the efforts of the Federal Government and of the States tend to develop the primary instruction for the diffusion amongst the rural populations of the economical elements and of the natural sciences, without which agriculture is condemned to be no more than a routine in our country.

"Bringing to a close what has been said, it appears useful to study the general thought contained in the anterior lines under two phases. The first is to introduce amongst the country people the use of loans, with the object of improving cultivation and augmenting production. The second is to establish the basis of agricultural credit, making movable the capital of the farmer, without hindrances which cause him embarrassment in his transactions.

"The creation of a great financial establishment, instituted guaranteeing to offer sums of money exclusively to agriculture, under very moderate terms, will be the accomplishment of the development of this element of public riches.

"With these measures and those which are dictated in harmony with those for the protection of mining and colonization, we will have succeeded in guiding the capacity of traffic of the Republic to a distinguished position amongst commercial nations."

Judging of the reports we have examined, that of Messrs. Crespo and Barroso, and of Mr. Salazar, the whole pamphlet published by indication of the honorable secretary of fomento is destined to lend great and positive services to all the industries of the country, showing them the most practical means of developing all the sources of national riches, so that the effects of a mercantile crisis as that which we now suffer from will be less felt in the future.

M. ZAPATA VERA.

TRADE OF MEXICO WITH THE UNITED STATES.

REPORT OF VICE-CONSUL WINSLOW.

I forward the inclosed list of the exportations of the principal American products from the United States to Mexico for the month of August, 1885 and 1886, and the sum of the exportations for the months of July and August for the same years.

It will be seen that the exportation of raw cotton to Mexico for the month of August, 1886, was reduced to $713 from $69,361 for the corresponding month of 1885. This is probably owing to more cotton being raised in Mexico than formerly, and that at this rate, instead of importing cotton, Mexico will in a few years export it.

Of cotton cloths the United States exported to Mexico, in the month of August, 1885, to the amount of $52,581, and in 1886 but $39,517. This may be owing to the fact that new factories for cotton cloths have been established here and Mexicans are depending more on their own manufacturers.

Of corn there was exported to Mexico from the U[illegible] month of August 188[illegible]

$3,160. This falling off can be accounted for by increased acreage of land in Mexico devoted to the cultivation of tobacco and the increased use and quality of Mexican tobacco.

In the month of August, 1885, the United States exported to Mexico steam engines to the value of $32,886, and for the corresponding month of 1886 to the value of $22,138.

In sewing-machines there was a falling off in the value of exportations from the United States to Mexico for the month of August, 1886, compared to that of August, 1885; also of agricultural implements, refined sugar, sheep, lard, butter, cotton manufactures, and tallow.

There was an increase in value of exportations from the United States to Mexico for month of August, 1886, as compared with the month of August, 1885, of the following articles, viz: Charcoal, flour, printed publications, lumber, petroleum, and railroad cars.

From July 1 to August 30, 1885, there was exported from the United States to Mexico of the principal American products the value of $726,843, and for the corresponding months of 1886 but $535,762.

These figures go to show that the importation of many articles by Mexico from the United States is decreasing.

CHARLES WINSLOW,
Vice-Consul.

UNITED STATES CONSULATE,
Guerrero, Mexico, March 19, 1887.

Exportations from the United States to Mexico for the month of August, 1885 and 1886.

[Principal American products.]

Merchandise.		1886.		Values, 1885.
		Quantities.	Values.	
Raw cotton	pounds	6,624	$713	$69,361
Agricultural implements			797	3,108
Refined sugar	pounds	56,784	5,534	6,775
Charcoal	tons	2,456	6,552	2,846
Pork meat				16
Head of sheep		6,905	9,158	32,959
Cotton cloth	yards	676,348	39,517	52,581
Flour	barrels	1,371	8,706	7,346
Printed publications			5,558	2,786
Hops		611	139	136
Lumber	pounds		7,041	4,909
Corn		81,116	43,602	80,845
Sewing-machines	bushels		5,046	5,891
Steam-engines			22,138	32,886
Lard	pounds	167,409	13,826	15,667
Butter	do	3,586	670	1,631
Cotton manufactures			6,451	8,025
Petroleum	gallons	160,691	19,059	12,694
Tallow	pounds	61,671	3,454	5,918
	do	30,500	3,162	15,107
			3,213	1,166
			204,336	362,653

DAIRY EXPERIMENTS IN DENMARK.

REPORT OF CONSUL RYDER.

I present a report on the experiments which have been carried on under the auspices of the Danish Government in relation to the ice-cooling of butter during its stage of repose in the dairy, as well as under its transport by rail and steamer.

At the experimental laboratory experiments have been made in the two last summers on the effect upon butter cooled by ice between the time of its manufacture and of its sale in the English markets.

Some have held that preserving butter in somewhat highly ice-cooled chambers tends to injure and not improve it, whenever at any later stage it might be exposed for a few days to ordinary summer heat.

In the experiments to test this matter the several butter samples have been judged in this country by three Danish butter experts of high repute, whilst in London and in Newcastle the samples were adjudged by members of three butter-trading firms of high standing. The butter used in the experiments, consisting altogether of 94 half-firkin casks, was the produce of the most noted dairies in the Kingdom, in every case prepared and treated at each dairy by the dairy-women of the place precisely as was the general usage of the dairy. At least two samples of identical make were taken, of which the one was retained and transported in an uncooled chamber, as had hitherto been customary, whilst the other was preserved and transported in ice-cooled chambers.

Three days before the judgment should take place the butter samples which had been preserved in the ice-cooled compartment were removed to the cellar chamber, where they were placed side by side with the other class of butter samples there deposited, so that the whole of the butter on the day of adjudication should have the same temperature.

As regards the experiments made in 1886, it may be mentioned that for these ice-cooled boxes were provided, into which the iced samples were deposited the moment they were made ready, and they remained in these boxes during their stay in the dairies as well as being transported by rail and steamer to the places where the judgment should be pronounced, Copenhagen, Newcastle, or London.

The butter with destination to England was forwarded on a Thursday afternoon, arriving in Newcastle on the Sunday following, and was discharged on Monday either into the warehouse cellars at that place or were forwarded by rail to London, where they would arrive on the following morning, and were placed as speedily as possible in the warehouse cellars. In London as well as in Newcastle the ice-cooled samples were laid side by side with the cellar samples two days before the adjudication took place.

OBJECTS OF TEST.

shortly after their removal from the iced compartments, would nevertheless be found to deteriorate rapidly, more rapidly than the cellar samples, after standing under an ordinary temperature.

There have been held in all four series of experiments, and the following table shows the results:

Series.	Place.	Iced sample.		
		Number times better.	Number times equal.	Number times worse.
1	Copenhagen	23	0	1
2	Copenhagen	55	5	0
3	London	10	5	3
4	Copenhagen	57	3	0
	Newcastle	41	15	4
	London	28	0	2
	Altogether 252 times	214	28	10
	Expressed in percentage, giving	85	11	4

The following figures denote the average proportional adjudged values in all the experiments for each ice-cooled or cellar sample:

	Award.	Ice-cooled.	Cellar sample.
First		100	97.4
Second		100	94

The results of these experiments may thus be summarized:

(1) That the ice-cooled samples, after standing over from two to three days in the butter-cellars, at a temperature of from 15° to 19° C., have steadily been found better than the cellar samples.

(2) That the ice-cooled samples, after having further laid over for about a week in the same cellars, have still maintained their ascendency over the cellar samples.

This result has only been attained by keeping the ice-cooled samples in an iced condition from the time when they were prepared in the dairies and until two to three days prior to the day of award; and whenever both dairies as well as the trains and steamers are provided with properly-arranged chambers, the cooling will then most surely contribute towards raising and upholding the reputation of Danish summer butter on the English markets.

The experiments would also appear to have repelled the theory that a more frequent communication between Denmark and England would increase the market for butter, inasmuch as in 28 comparisons made between "newest" and "oldest" butter, the difference being seven [illegible] the "newest" butter has in 25 cases and the "oldest" only in [illegible] it was also shown that the differ-

not possess such favorable conditions of temperature as to occasion no other means of obtaining a greater degree of cooling.

Experts in the butter trade were sent from this country to Sweden and ascertained that once a week a train on the Swedish main lines is dispatched provided with refrigerated wagons for butter. The temperature of these Swedish ice-cooled cars closely approximated to that of the cooled boxes used here in the experiments just described. There can therefore be no difficulty in procuring such a temperature for daily practice.

Supposing that refrigerated compartments are not arranged in the trains and steamers, an extreme course of cooling in the dairies will undoubtedly prove of great benefit, as butter is so bad a heat conductor that a cask of the size of one-third barrel, after having been cooled to about 0°, is found to resist the destructive effects of a high temperature for a much longer period than an uncooled cask.

In this refrigerating system one circumstance may arise which should not be overlooked: Dealers may find a greater difficulty in detecting any defects in the ice-cooled butter. The cooling may, for this reason, place the butter trade upon a less safe basis.

HENRY B. RYDER,
Consul.

UNITED STATES CONSULATE,
Copenhagen, December 18, 1886.

FRENCH DUTIES ON CEREALS.

REPORT OF CONSUL MASON.

After more than a year of agitation and discussion the act increasing the present duty of 3 francs per hundred kilograms on wheat imported into France to 5 francs was yesterday finally adopted by the Senate. The new law will be promulgated and take effect immediately. Its final enactment has been generally anticipated since its passage by the House of Deputies nearly a month ago, and its immediate effect upon the breadstuffs market has been therefore discounted and prepared for.

A similar amendment, to raise from 8 francs to 10 francs per hundred kilograms the import duty on flour, is under consideration, and its adoption is deemed probable, since otherwise the enhanced duty on wheat would stimulate the importation of flour, and thus be prejudicial to the interests of French millers.

The measure which was finally adopted yesterday has been the most important theme of debate during the present session of the Assembly.

The increased duty has been advocated in general by two classes of deputies, viz, those who represent agricultural constituencies and those who have felt that the revenues of the Government were in such condition as to demand this final sacrifice—a tax that would increase the price of bread. It was generally opposed by deputies and senators who represent sea-ports and purely industrial communities. The members of both houses from Marseilles, Bordeaux, Havre, [illegible] factory districts did th[illegible]

During the same period the House of Deputies has voted to advance the duty on oats from 1½ francs per hundred kilograms to 3 francs; but, on the other hand, it has refused to impose any duty on Indian corn, which remains, as it has been hitherto, on the free list, as a raw material.

The reasons for this apparently contradictory policy with respect to oats and maize are as follows: Oats are grown quite extensively in France, and an increased duty would not only yield a considerable revenue, but would stimulate still further the culture of that cereal. But corn is not cultivated at all, except in three or four departments, and has of late years been imported largely both as food for cattle and for the manufacture of alcohol. It is doubtful whether maize could be profitably grown on more than a very small part of the area of France, so that to levy a duty on a product thus limited would be to increase the price of corn, and thus discourage the better feeding of hogs and cattle, and at the same time have the effect of putting an increased bounty on the culture of the sugar-beet for alcohol manufacture. But beet culture is already sufficiently protected by the high import duty on raw sugars, which has raised the beet-sugar product of France to 298,407 tons per annum and caused great alarm to the French colonists and the importers and refiners of cane sugar. Accordingly, maize will continue to be admitted free as a raw material for stock-feeding and the distilling of alcohol.

It may be of interest to examine briefly the probable effect of these several changes in the French tariff upon the imports from the United States.

The new law raises the former tariff of 15.8 to 26.3 cents per bushel on all wheat imported into France. This, at the present value of American wheat, would be equivalent to an ad valorem duty of more than 28 per cent. on the raw material of bread, and it is not surprising that the bakers in many French cities and villages have already advanced their prices from 8 cents per kilogram to 9.

Estimated on the basis of last year's imports, the present tariff on wheat would yield a revenue of about $14,300,000 per annum, an important item in the French budget.

The far more serious question, however, is whether the increased duty on wheat will have the promised effect in encouraging a larger home product and thereby restrict and gradually diminish imports. It is not believed by those best informed on the subject that the enhanced tariff will have any immediately serious effect of this kind. French people of all classes are remarkable eaters of bread. Carefully prepared statistics show that the average annual consumption of bread by each inhabitant of Marseilles is 214 kilograms, or 460 pounds, against only 151 pounds of meat. Whatever else they may lack, the French people, rich and poor, must and will have bread, so that it is not the rate of duty, but the extent of the home wheat product and the consequent deficit, which will in future, as they have in the past, determine the amount of wheat imported. It has been predicted and promised by the [illegible] would encourage the French farmers [illegible] seven years,

cents per bushel) was passed with the same protective purpose, but it has had thus far no appreciable effect on the home wheat acreage or crop. The harvest of 1886 yielded 43,000,000 bushels less than that of 1885, and the opponents of the increased duty have pointed eloquently to the present distress of French industry, and predicted that, without sensibly relieving the farmers, it would lay a grievous and burdensome tax upon the laborers' food. The fact will probably be found about midway between the expectations of extremists on both sides of the question. There will be, no doubt, after this year some increase in the area of wheat planting, which in very favorable seasons may raise the aggregate product to nearly the 340,000,000 bushels which this country annually consumes; but, during unfavorable and even average seasons, there will still be left a large deficit to be filled by importation.

Much of the land which for ten years past has been used for wheat growing belongs by right to the far more profitable business of grape culture. The farmers have sowed grain only because mildew and phylloxera had destroyed their vines. Now that the latter and principal of these pests has been circumvented by artificial submersion, or the planting of American vines, the wheat fields of the past decade are being reconverted into vineyards, and no 5 or even 10 franc duty on wheat will check this return to the most lucrative culture of which French soil is susceptible.

France imported during the year 1886 33,426,500 bushels of wheat, of which 11,068,000 bushels came from the United States. At the port of Marseilles the receipts during the same year were 17,948,000 bushels, of which 1,686,300 bushels were supplied by the United States, 6,555,700 bushels came from Russia, 963,000 bushels from Turkey, 4,324,800 from British India, 719,200 from Roumania, 3,536,700 from Algeria, and the remainder from various other countries. The anticipated adoption of the advanced tariff has not seriously checked importations, and there are at this moment several cargoes afloat from New York and San Francisco for entry at this port under the new duty.

From what has been said above respecting maize, it would seem probable that there may be in future an increased French demand for American corn, which in point of quality ranks first in this as in other markets.

At the present moment, however, a sharp and fatal competition is offered by maize of an inferior quality from the Danube, which, since the spring opening of navigation in that quarter, has been forwarded in large quantities, and is now offered afloat in Marseilles docks at 11 francs per hundred kilograms, freight and insurance included, while American corn, under the same conditions, costs 15 cents per hundred kilograms above that figure. This disparity of market values is probably only temporary, as the Danubian supply is limited and its quality inferior to that of the American maize. It would appear natural that the enhanced cost of wheat bread would increase the consumption of untaxed and cheap maize as human food, but so conservative are the French people in all that concerns their diet and drink, so devoted are they to wheaten bread, that it is not probable they will accept any substitute, however advantageous in point of

NOTES.

Ramie culture in Spain.—Her Britannic Majesty's consul at Barcelona writes as follows:

Agriculturists in the Gerona district have lately been turning their attention seriously to the cultivation of the ramie plant, commonly called China grass, I believe. For some years past, in consequence of the destructive inroads of the phylloxera and other pests among the vineyards, and of the increasing importation of cereals from America and elsewhere, the cultivation of the vine and cereals has ceased to be as profitable as formerly in that part of Gerona, and finding that the climate and soil are in every way suited to the cultivation of this grass, and that the few essays that have been made have resulted in success, a factory for decortication has been erected near the plantation, its inauguration, although created and carried out under foreign (French) auspices, having been attended by the notables of Catalonia. Hitherto the roads from the above district have been but dry beds of torrents, which prevented conveyance of produce to any distant market. Now it appears the roads are to be leveled and made passable. It is said that this plant is destined to replace not only the hemp and flax which are imported from France for the manufacture of textiles in Barcelona, but even cotton. The plant at present grown belongs to the family of the *Urticaeæ*, and grows to a height of from 60 to 90 inches. It is essentially a textile plant, and two cuttings may be made in the year and cultivated under good conditions. A hectare would grow from 3,000 to 10,000 kilograms of stalks. At present there are few or no reaping-machines in that part of Spain; but as labor is cheap the weeding and pulling of the crop are done without much expense.

The plantations at Torroella de Montgui, the district of Gerona in question, have an extent of 130 hectares; but there is land disposable for the culture extending over 3,000 hectares. The price of ramie to-day is 10 pesetas [8*s.*] the 100 kilos. There are three decorticating machines at work, moved by a steam engine of 15 horse-power. It decorticates 215 kilos of stem in twelve hours, from which are obtained 43 kilos of thread, requiring but two workmen to manage each machine—one to introduce the stalks and the other to receive the fiber—and the expense is 12 pesetas [50 cents] per 150 kilograms of thread per diem. The society to which the plantations and factories belong is the *Société de la Ramie Française*, founded in 1882, with a capital of 3,360,000 francs.

The advantage of the ramie over other textiles rests in its great resistance to wear, three times greater than that of hemp, and from its greater length is more flexible, and has the property of color, assimilating itself to silk.

The following shows the conditions of the fiber of this plant in comparison with other textile productions:

Textiles.	Length.	Width.	Thickness.	Resistance.		
				Attraction.	Rupture.	Torsion.
	Meters.	*Millimeter.*	*Millimeter.*			
Ramie	0.50	.6	.07	100	100	100
Linen	0.05	.3	.03	25	66	30
Hemp	0.05	.5	.03	36	75	95
Cotton	0.06	.4	.05	12	100	400
Silk	1.00	.2	.01	13	400	600

thread produced can be manufactured into the following articles, viz: Blonds, and hangings, the punto cloth, the finest blankets

An examination of the record shows that there were produced during the past season, in the neighborhood of Toulon and Marseilles, more than 5,000,000 flowering bulbs, as follows:

Hyacinths:	
Early White Roman	4,000,000
Early Blue	50,000
Tender Rose	150,000
White Italian	50,000
Narcissus:	
Paper White (*Lotus albus*)	500,000
Constantinople or Double Roman	150,000
Lilium candidum	250,000
Anemone fulgens	100,000
	5,250,000

Of this immense product the larger part has been exported to the United States, one dealer, who operates exclusively for the American market, having purchased more than two-thirds of the entire crop of last season. But for commercial reasons a certain mystery is woven about the origin of this merchandise.

The American demand is for "Dutch" bulbs, and, accordingly, a large part of those grown in this district are either sold to exporters in Antwerp and Amsterdam or are shipped via those ports to the United States in order to give them the appearance of Dutch origin. So far is this regard for appearances carried that some American importers insist that their correspondents in this district shall not only ship their bulbs via Holland and Belgium and so manipulate their consular invoices as to conceal their real origin, but they even require that these Southern French bulb-growers and dealers shall refrain from advertising their business in the United States. But notwithstanding these subterfuges the business of bulb-growing is profitable and rapidly increasing in this section, where the culture of immortelles is rather on the decline.

Two reasons are assigned for this. The first of these is the fact that in the departments of Var and Gard, where immortelles have been cultivated for generations on the same dry, gravelly slopes, the soil has become fatigued and the plants degenerate in vitality. Consequently the yield of the two or three last seasons has not been up to the mark of former years. But the most serious fact that affects the immortelle industry is the substitution, during recent years, in this country at least, of artificial wreaths and *couronnes*, made of glass, wire, and porcelain, which subserve more cheaply, because more permanently, the purposes for which immortelles were formerly exclusively used in memorial decorations.

In consequence of this the value of immortelles has declined, notwithstanding the diminishing supply, to about half the price of ten years ago, and the culture is no longer profitable.

Trade of Belgium in 1884, 1885, and 1886.—Consul Robertson, of Verviers and Liège, transmits the following under date of March 10, 1887:

Importations and exportations of wool and woolen goods into and from the Kingdom of Belgium during the years 1886, 1885, *and* 1884.

Description.	Importation.			Exportation.		
	1886.	1885.	1884.	1886.	1885.	1884.
	Kilos.	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*
Woolen yarns	846,706	980,680	832,396	11,212,871	9,379,388	8,911,288
Wool	38,397,170	43,802,074	36,417,409	*92,949,492	96,109,308	78,027,630
Woolen fabrics.						
	Francs.	*Francs.*	*Francs.*			
Cloths, cassimeres, &c	3,359,999	3,002,929	2,798,875	1,349,978	1,439,942	1,382,191
Coatings, duffils, &c	1,745,225	1,901,578	2,484,905	258,774		
All other light fabrics	15,029,200	17,043,455				
Clothing						

Importations and exportations of coal and coke into and from the Kingdom of Belgium during the years 1886, 1885, and 1884.

IMPORTATIONS.

Whence imported.	Coal.			Coke.		
	1886.	1885.	1884.	1886.	1885.	1884.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Germany	261,105	387,241	438,578	12,501	13,241	21,423
England	293,141	305,441	298,284	1,166	3,355	1,323
France	166,540	123,112	78,673	5,206	4,595	8,818
Holland*	281,266	421,663	408,124	2,529	903	1,249
Miscellaneous	231	22	32	----------	----------	----------
Total	1,002,283	1,237,449	1,223,691	21,402	22,094	32,813

* Nearly the entire amount given as reported from Holland, really comes from England or Germany.

EXPORTATIONS.

Destination.	Coal.			Coke.		
	1886.	1885.	1884.	1886.	1885.	1884.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
France	3,878,433	3,998,350	4,340,259	733,887	752,837	772,927
Holland	148,344	129,737	120,034	----------	----------	----------
Grand Duchy of Luxemburg	----------	----------	----------	148,680	87,803	77,802
Miscellaneous	245,944	40,243	158,899	25,054	8,086	3,529
Total	4,272,721	4,338,330	4,619,192	907,621	848,726	854,256

Production, in tons, of coal, iron, and steel in the Kingdom of Belgium during the years 1885 and 1886.

District.	Coal mines.		Blast-furnaces.			
			Kind of castings.			Total production.
	Number in operation.	Total production.	Mouldings.	Pig-iron.	For steel.	
Second six months :						
First division	75	6,534,561	540	158,278	----------	158,728
Second division	62	2,276,116	27,864	82,618	76,382	186,864
The entire Kingdom	137	8,810,677	28,314	240,866	66,382	345,592
First six months, repetition	140	8,442,467	44,680	245,186	61,652	351,518
Entire year, 1886	140	17,253,144	72,994	486,072	138,034	697,110
Totals for year 1885	150	17,437,603	75,417	509,137	128,322	712,876

District.	Iron works.		Steel works.	
	Kind of product.	Total production.	Castings, ingots, &c.	Forgings, rails, plates, &c.

The movement of cotton in Europe.—Consul Catlin, of Zurich, writes as follows under date of March 1, 1887:

The following tabulated statement, showing the stock on hand, importations, and consumption of cotton in Europe, from October 1, 1885, to January 31, 1887, has been kindly furnished me by Mr. Eugen Zeiz, a competent and well-known cotton agent of this city:

Kind.	Stock on hand Oct. 1—		Imports from Oct. 1, to Jan. 31—	
	1885.	1886.	1885–'86.	1886–'87.
	Bales.	*Bales.*	*Bales.*	*Bales.*
American	462, 340	306, 730	1, 973, 610	2, 305, 380
Brazilian	50, 040	30, 720	69, 970	109, 480
Egyptian	49, 350	19, 270	223, 650	257, 540
Levantine	4, 330	7, 444	20, 240	20, 660
West Indian	30, 400	28, 070	21, 450	18, 110
East Indian	149, 800	222, 660	130, 440	170, 920
Total	746, 260	614, 890	2, 439, 360	2, 882, 090

Kind.	Consumption from Oct. 1 to Jan. 31—		Stock on hand Jan. 31—		Imports from Feb. 1 to Sept. 30—	Consumption from Feb. 1 to Sept. 30—
	1885–'86.	1886–'87.	1886.	1887.	1886.	1886.
	Bales.	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*
American	1, 727, 170	1, 738, 800	708, 780	873, 310	2, 310, 350	2, 712, 400
Brazilian	74, 230	100, 350	45, 780	39, 850	110, 840	125, 900
Egyptian	201, 540	203, 450	71, 460	73, 360	169, 020	221, 210
Levantine	18, 070	22, 300	6, 500	5, 800	33, 600	32, 660
West Indian	20, 930	19, 910	30, 920	26, 270	51, 400	54, 250
East Indian	211, 820	248, 340	68, 420	145, 240	1, 168, 490	1, 014, 250
Total	2, 253, 760	2, 333, 150	931, 860	1, 163, 830	3, 843, 700	4, 160, 670

Prices in Liverpool on the 10th of February, 1886 and 1887, were as follows:

Quality.	1887.	1886.
	d.	*d.*
Middling, Orleans	5¼	5
Middling, Upland	5⅛	4 15/16
Good fair, Egyptian	6¾	5 13/16
Good Broach	4 11/16	4 9/16
Good Dhollerah	4¼	4⅜
Good Oomra	4 5/16	4⅜

"In case," concludes Mr. Zeiz, "the American crop does not exceed 6,200,000 or 6,300,000 bales, as is now variously estimated, prices will undergo no perceptible rise during the present season."

Petroleum in Greece.—Consul Moffett, of Athens, writes as follows, under date of February 3, 1887:

A shipment of petroleum, consisting of 6,200 cases, to the order of the Greek Government, for the petroleum monopoly, has just been received at the Pi[illegible] the Black Sea, and is now being disch[illegible] of exactly the *same*

The total consumption of petroleum in Greece last year was about 150,000 cases, all of which was imported from the United States.

If American exporters are not willing to lose their hold on this market, immediate steps must be taken to reduce the cost of transportation, and, I would add, TO IMPROVE THE QUALITY of the oil sent here.

Free ports in British West Indies.—Consul T. J. McLain, jr., of Nassau, N. P., writes as follows under date of March 26, 1887:

By order of the governor in council, the following places have been made ports of entry of this colony between the 20th day of April and the 20th day of August, 1887, viz: Arthur's Town and Port Howe, in the island of San Salvador; Tarpum Bay and Gregory Town, in the island of Eleuthera.

This temporary arrangement has been made for the convenience of fruit-vessels desiring to clear for United States ports during the pineapple season.

The wine trade of Bordeaux for the years 1884, 1885, and 1886.—Consul Roosevelt, of Bordeaux, writes as follows, under date of March 10, 1887:

Notwithstanding the plagues that continue to devastate the vineyards of France the commerce in wine does not retrograde, but on the contrary yearly increases.

The following tabulated statement shows the importations and exportations of wines at Bordeaux during the last three years:

Countries.	1884.	1885.	1886.	Total.
Importation in casks.	*Hectoliters.*	*Hectoliters.*	*Hectoliters.*	*Hectoliters.*
Algiers	1	2	13,348	13,351
Austria	42,512	48,863	104,962	196,337
Belgium	93	33	37	163
England	981	1,861	1,421	4,263
Germany	165	78	378	621
Greece	2,701	1	1,306	4,008
Netherlands	53	62	58	173
Italy	79,829	37,353	172,844	290,026
Norway	7	3	11	21
Portugal	256,725	695,389	1,026,768	1,978,882
Russia	----------	----------	600	600
Spain	473,105	307,654	449,358	1,230,117
Switzerland	7	9	8	24
Turkey	352	1,316	32,689	34,337
Uruguay	----------	----------	43	73
United States	1	51	18	70
Other countries	102	347	131	580
Total	856,614	1,093,022	1,803,980	3,753,616
Importation in bottles.				
Algiers	----------	3	1	4
Austria	4	4	----------	8
Belgium	7	2	10	19
England	78	87	88	253
Germany	24	28	25	77
Netherlands	40	41	29	110
Italy	1,455	1,005	1,400	3,860
Portugal	167	111	287	565
Russia	1	----------	----------	1
Spain	870	1,005	226	2,101
Switzerland	4	15	20	39
Turkey	----------	----------	1	1
Uruguay	----------	1	----------	1
United States	4	11	1	16
Other countries	19	11	36	66
	2,673	2,324	2,124	7,121
				3,760,757

Countries.	1884.	1885.	1886.	Total.
Exportation in casks—Continued.				
Russia	*Hectoliters.* 9, 470	*Hectoliters.* 7, 906	*Hectoliters.* 6, 022	*Hectoliters.* 23, 398
United States	24, 390	32, 820	32, 068	89, 278
Uruguay	80, 613	72, 910	87, 951	241, 474
Other countries	166, 496	123, 931	279, 253	569, 680
Total	1, 130, 659	1, 058, 796	1, 247, 675	3, 437, 130
Exportation in bottles.				
Argentine Republic	5, 551	6, 037	8, 992	20, 580
Brazil	2, 287	3, 705	2, 780	8, 772
Cuba	110	37	241	388
England	36, 390	38, 315	39, 066	113, 771
Netherlands	2, 114	5, 647	2, 338	10, 099
India	1, 256	891	1, 108	3, 255
Peru	1, 840	458	1, 307	3, 605
United States	10, 414	10, 198	10, 824	31, 436
Other countries	36, 233	30, 929	34, 173	101, 335
Total	96, 195	96, 217	100, 829	293, 241
Grand total of exportations	1, 226, 854	1, 155, 013	1, 348, 504	3, 730, 371

Peronospora on the Rhine—Commercial Agent Smith, of Mayence, writes as follows under date of March 7, 1887:

Another pest, as rapacious as the phylloxera, has made its appearance in the vineyards of Germany, threatening to accomplish on the Moselle and Rhine what the phylloxera has failed to effect. This is the peronospora, which did much damage last fall among the vineyards of the Moselle, and in a short time destroyed many bright prospects of a gratifying vintage. The experience of other lands has been that wherever the plague appears, in the succeeding year it ravages with increased violence, and the vine-dressers of the Moselle and Rhine are consequently filled with alarm for the future. It, too, is a raider across the border from France. The Chamber of Commerce at Coblenz has called the attention of the Government at Berlin to the pest, it is said, and asked if the simple remedy adopted on the banks of the Ohio in the United States to destroy the marauders, that is, the burning of the leaves upon which it has fixed its seat, cannot be ordered to be used by the police. This could not be tried last year, as the season was too far advanced when the scourge was discovered, but I suppose will be applied during the coming summer. The only effective application thus far known is the sprinkling of the under part of the infected leaves with a solution of 8 parts of sulphuric acid oxide of copper, 12 parts of lime, and 80 of water, but to this there is the great objection that the oxide of copper may have a bad effect upon the wine obtained from vines so treated. This, though, it is claimed, can be avoided by mixing 98 parts of water, 1 of sulphuric acid oxide of copper, and 1 of ammonia, together.

Russian Agricultural Exhibition.—Vice-Consul-General Prince, of St. Petersburg, writes as follows under date of March 19, 1887:

I am in receipt of a letter from the committee of the Agricultural Exhibition, which by permission of the minister of imperial domains is to be held this year at Kharkoff, from October 2 to October 22 (new style).

Foreign exhibiters are invited to supply two divisions of this exhibition, viz: Division I, cattle, horses, mules, asses, horned cattle, sheep, pigs, poultry, &c.; Division VI, agricultural machines and implements of every description.

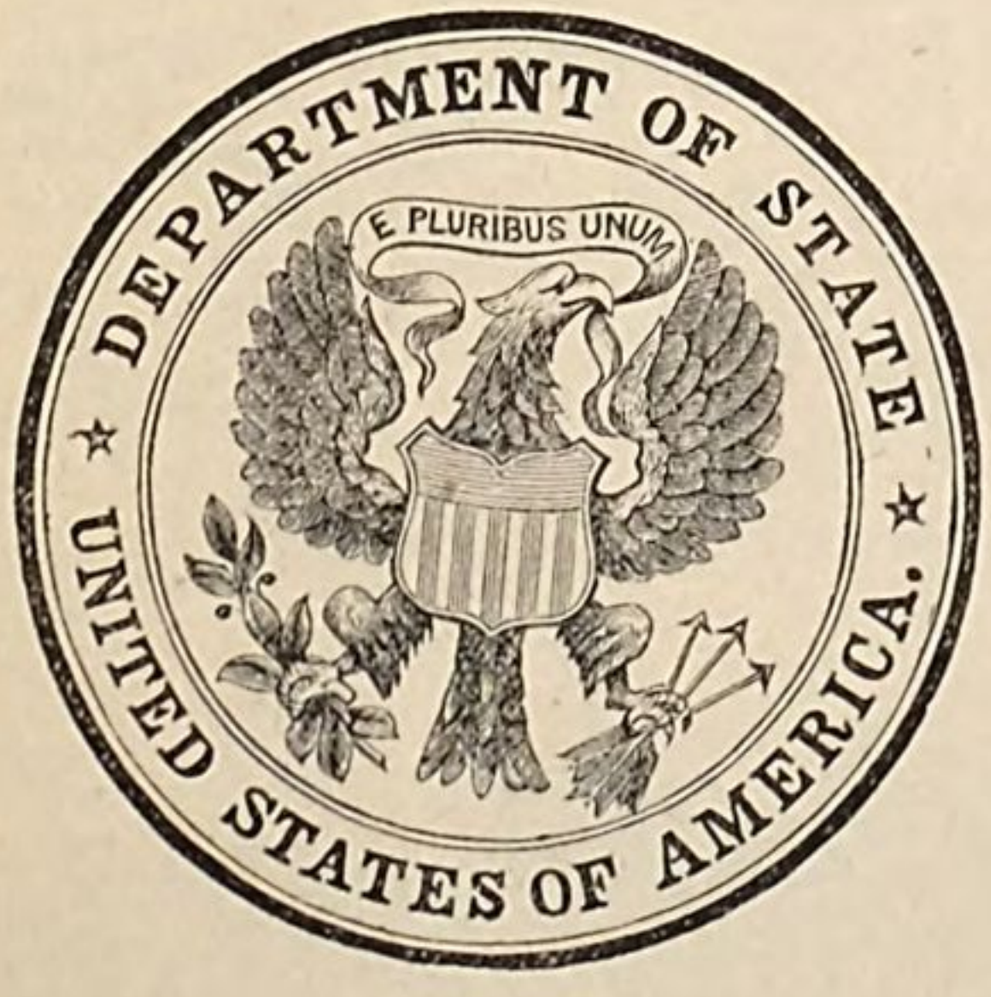
Kharkoff being the center of the agricultural industry the exhibition is worthy of the notice of American manufacturers and exhibitors.

REPORTS

FROM THE

CONSULS OF THE UNITED STATES.

No. 79.—JUNE, 1887.



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CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

No. 79.—JUNE, 1887.

THE NATIVE SHEEP OF SOUTH AMERICA.

REPORT OF CONSUL BAKER.

Is it not strange, in a country like the Argentine Republic, the mountain slopes and fastnesses of whose interior provinces and territories are the native homes of several species of wool-producing animals of the very first order, that these animals should be almost entirely neglected, and the attention of those engaged in pastoral pursuits directed exclusively to the production of sheep whose stock was originally brought from Europe? On account of the admirable fitness of the pampas of the province of Buenos Ayres, both in respect to climate and natural grasses, for the raising of sheep, it is not surprising that that industry has in the last thirty years developed into such grand proportions, now furnishing nearly one-third of the wool clip of the world. But in the upper, and especially the Andine provinces, and in Patagonia, where there is a scarcity of nutritious grasses, thus rendering those regions, in the absence of cultivated crops, less capable of sustaining that "latest production of art," the modern sheep, it has seemed to me an inexcusable want of enterprise on the part of the people not to rear and propagate, for the wool or hair, the great flocks of native breeds that roamed the wilds of those parts of South America long before the Spanish merino had found its way to this country, and whose fleeces were so wonderfully utilized by the Incas of Peru in the manufacture of textile fabrics.

HOW THE NATIVES UTILIZED THEM.

At the time that the Spaniards first visited South America there were no animals in the country which exactly corresponded to the sheep of Europe; but they found in Peru and in the regions of the Andes several species of animals to which they gave the name of "[illegible] (*carneros de la tierra*), but which

they originally came from. They used the llamas as beasts of burden, and they raised the alpaças especially for their fleeces, rarely using them for carrying-purposes. The other two varieties, the guanaco and the vicuña, were then, as they are still, always found in a wild state, and were seldom domesticated.

Prescott, in his Conquest of Peru, gives an interesting account of the uses which the ancient Peruvians made of these native sheep. He says:

* * * But from the llama and the kindred species of Peruvian sheep they obtained a fleece adapted to the colder climate of the table-land, "more estimable," to quote the language of a well-informed writer, "than the fur of the Canadian beaver, the fleece of the *brebis des Calmouks*, or of the Syrian goat."

Of the four varieties of the Peruvian sheep, the llama, the one most familiarly known, is the least valuable on account of its wool. It is chiefly employed as a beast of burden, for which, although it is somewhat larger than any of the other varieties, its diminutive size and strength would seem to disqualify it. It carries a load of a little more than a hundred pounds, and cannot travel over 3 or 4 leagues in a day. But all this is compensated by the little care and cost required for its management and its maintenance. It picks up an easy subsistence from the moss and stunted herbage that grow scantily along the withered sides and steeps of the Cordilleras. The structure of its stomach, like that of the camel, is such as to enable it to dispense with any supply of water for weeks, nay, months together. Its spongy hoof, armed with a claw or pointed talon, to enable it to take secure hold on the ice, never requires to be shod, and the load, laid upon its back, rests securely in its bed of wool, without the aid of girth or saddle.

The llamas move in troops of five hundred or even a thousand, and thus, though each individual carries but little, the aggregate is considerable. The whole caravan travels on at its regular pace, passing the night in the open air, without suffering from the coldest temperature, and marching in perfect order and in obedience to the voice of the driver. It is only when overloaded that the spirited little animal refuses to stir; and neither blows nor caresses can induce him to rise from the ground. He is as sturdy in asserting his rights on this occasion as he is usually docile and unresisting. * * *

Yet the ancient Peruvians seem to have valued the llama, in common with the other animals of that genus, chiefly for its fleece. Immense herds of these "large cattle," as they were called, and of the "smaller cattle," or alpacas, were held by the Government and placed under the direction of shepherds, who conducted them from one quarter of the country to another, according to the changes of the season. These migrations were regulated with all the precision with which the code of the *Mesta* determined the migrations of the vast merino flocks in Spain; and the Conquerors, when they landed in Peru, were amazed at finding a race of animals so similar to their own in properties and habits, and under the control of a system of legislation which might seem to have been imported from their native land. But the richest store of wool was obtained, not from the domesticated animals, but from the two other species, the guanacos and the vicuñas, which roamed in native freedom over the frozen ranges of the Cordilleras, where not unfrequently they might be seen scaling the snow-covered peaks, which no living thing inhabits save the condor, the huge bird of the Andes, whose broad pinions bear him up in the atmosphere to the height of more than 20,000 feet above the level of the sea. In these rugged pastures "the flock without a fold" finds sufficient subsistence in the *ychu*, a species of grass which is found scattered all along the great ridge of the Cordilleras from the equator to the southern limits of Patagonia. And as these limits define the territory traversed by the Peruvian sheep, which rarely, if ever, venture north of that line, it seems not improbable that this mysterious little plant is so important to their existence that the absence of it is the principal reason why they have not penetrated to the northern latitudes of Quito and New Granada.—(Vol. I, Book 1, Ch. V.)

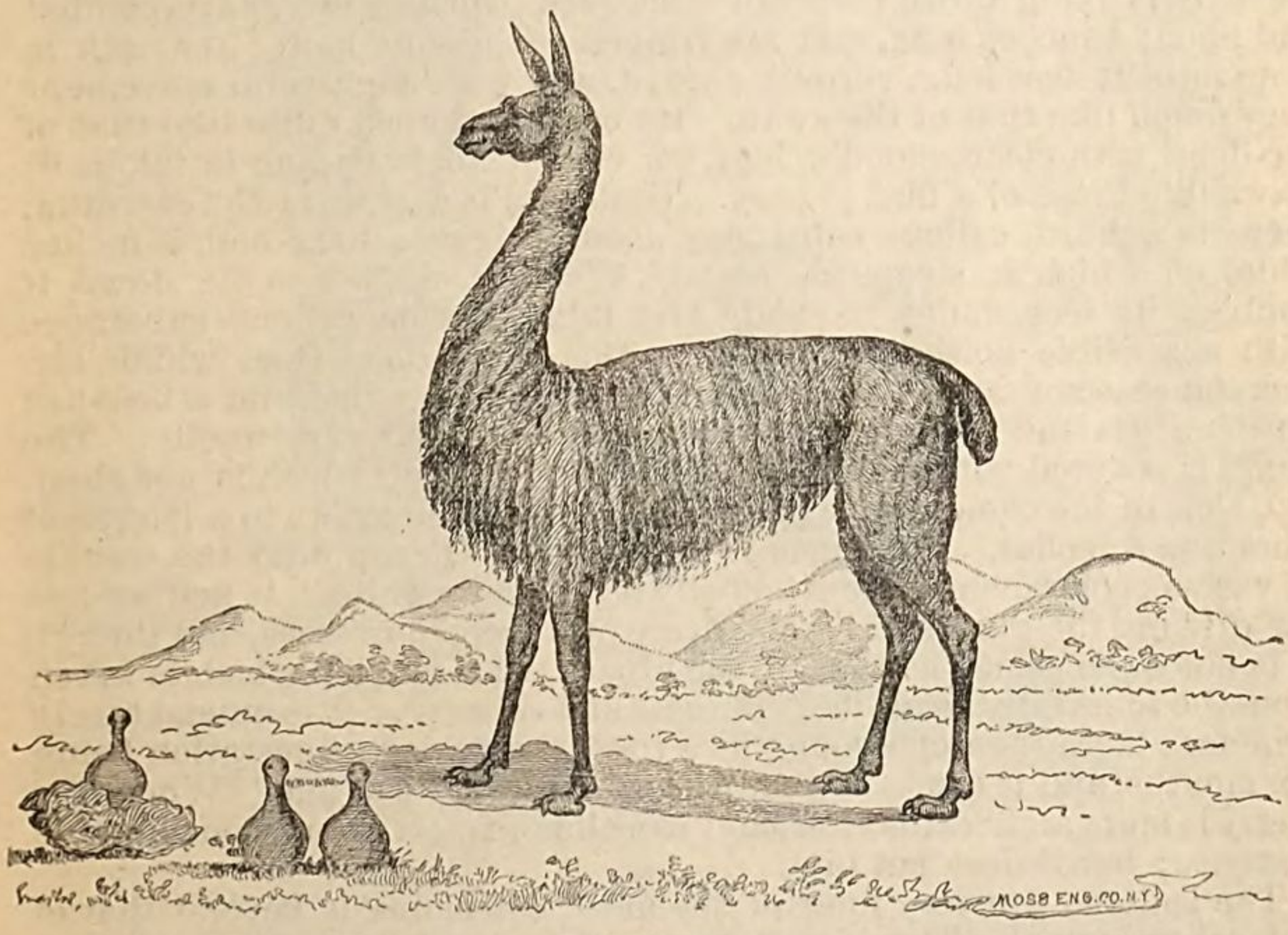
THE SEVERAL CLASSES OF NATIVE SHEEP.

...several classes, yet

from the same type. The llama and the alpaca are of various colors, and sometimes speckled. The guanaco and the vicuña are generally of a single color—brown, approaching to red. The llama and the alpaca are so resigned to their state of domesticity that they are scarcely able to take care of themselves or live in a wild state.* The guanaco and the vicuña prefer the wild state, but they are very susceptible of being domesticated. The Jesuits, who established their missions in this part of South America very shortly after its discovery, were the first to tame and domesticate the two latter animals, and the first also who undertook to cross them, which they did for the peculiar wool which the cross produced.

NOT FOUND NORTH OF ECUADOR.

Although these animals are all indigenous to the Cordilleras of the Andes, none of them are found north of Ecuador, neither in Quito, Bogota, nor Caracas, where the climate is quite analogous to that of Peru or the Argentine Republic. The guanacos are especially found in the extreme southwestern portions of the province of Buenos Ayres



LLAMA.

and in the desert ranges of Patagonia as far south as the Straits of Magellan. There they are the principal food of the Indians, their skins being used for clothing and for coverings for their wigwams *(toldos)*. The Chilians and the Auricanian Indians al[illegible]

modified by the climate, and which they formerly used as a beast of burden, but the use of which has in a great measure been superseded by the introduction of mules.

THE LLAMA.*

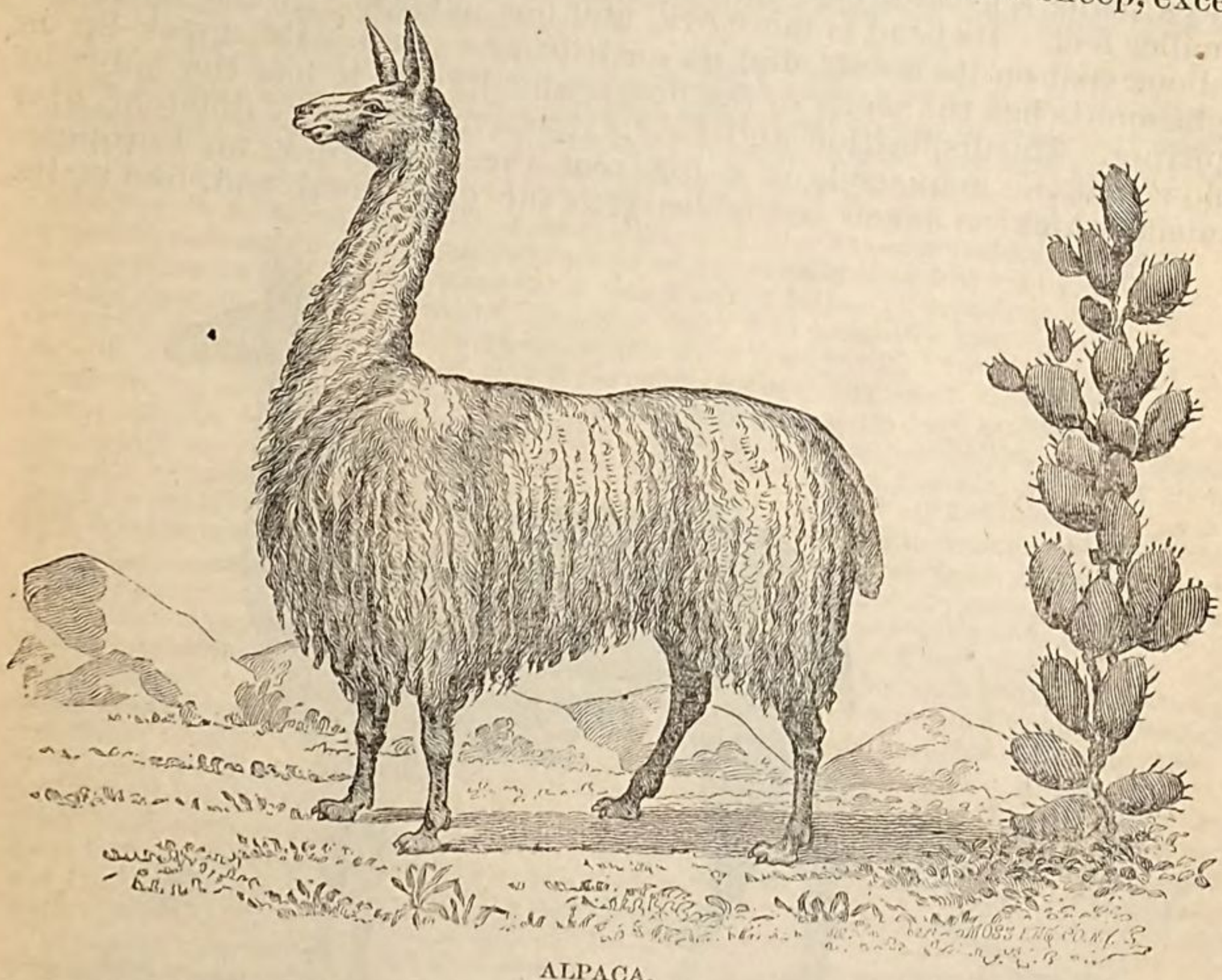
Of these several varieties of native sheep the largest and strongest is the llama (*Camelus llama*). It was especially esteemed by the native inhabitants as a beast of burden. Its load is about 100 pounds, though for short distances it is able to carry considerably more. Its height is from 4 to 5 feet, and the length of its body is about the same. It has a neck resembling somewhat that of the camel, and it carries its head in the same manner, thus making it look taller than it really is. It has no horns nor hump. Its hoofs are cloven, and it ruminates, or chews its cud. Its eyes are large and long, very black and prominent, but with a most soft and gentle expression. Its nostrils are wide and high. Its upper lip is divided like that of the camel, and it shows its teeth when it eats; its lower lip hangs slightly. In its upper jaw it has neither incisor nor canine teeth, but in the lower one it has six incisors and two canines; it has five molar teeth on each side of both jaws. When it walks it carries its ears forward like a horse that is frightened; when it is lying down they fall backward; its ears are sharp-pointed and about 4 inches long, and are fringed with white hair. Its neck is from 2 to 2½ feet long, slightly curved, and with a graceful movement very much like that of the swan. Its body is shaped quite like that of the deer, with clean, slender legs, its cloven hoofs ending in talons or claws like those of a bird of prey. Under its breast, over the sternum, there is a hard, callous substance about 6 inches long and 3 inches wide, on which it sleeps or rests. When it wishes to lie down it doubles its feet under its body and falls on this callous substance with a sensible noise, very much as the camel does, from which circumstance some argue that nature intended the animal for a beast of burden. Its tail is from 8 to 10 inches long and very woolly. The llama is covered with a very fine silky hair or wool, which is not shed, like that of the camel, but when properly cared for grows to a length of from 3 to 4 inches. The finest is on its legs. On the body the wool is of various colors, but under the belly it is always white. It neither has the dirt nor the grease which the fleece of a sheep possesses, and though it is not so esteemed as that of the alpaca, that portion which is taken from the loins fully rivals it in silkiness and softness. The animal rarely produces more than one young at a time, the period of gestation being six months, and it comes to maturity at three years of age. When it is angry it spits an acrid matter, and can thus project it to a considerable distance; but it does not bite.

The Indians are very fond of the meat, esteeming it beyond that of any other animal. They dry it in quantities, and they esteem the soup made from it as a sovereign remedy in nearly all cases of sickness. The step of the llama is solemn and majestic, and it is wonderfully sure-making a false step in the mountain passes, even of them are thus loaded,

longer than three or four years, in consequence of infirmity caused by the sulphurous and arsenious exhalations. In the past, in the far interior, these beasts of burden could be seen in troops of five hundred, but it is now a rarity to see a hundred together. They exhibit great affection for the person who takes care of them, and after an absence will bleat and make wonderful demonstrations of joy at seeing him.

THE ALPACA.

The size of the alpaca (*Camelus alpaca*) is a little less than that of the llama, its height being about 4 feet, the length of its body being the same. Its neck is neither so long nor so delicate, nor does it possess the noble presence of the llama, though it is not an uninteresting animal. The appearance of its body when the fleece has been removed is very similar to that of the llama. Like it, the upper lip is divided, and it shows its teeth when it eats, as also its gums, which are as black as ebony. Its head looks more like that of the sheep, except



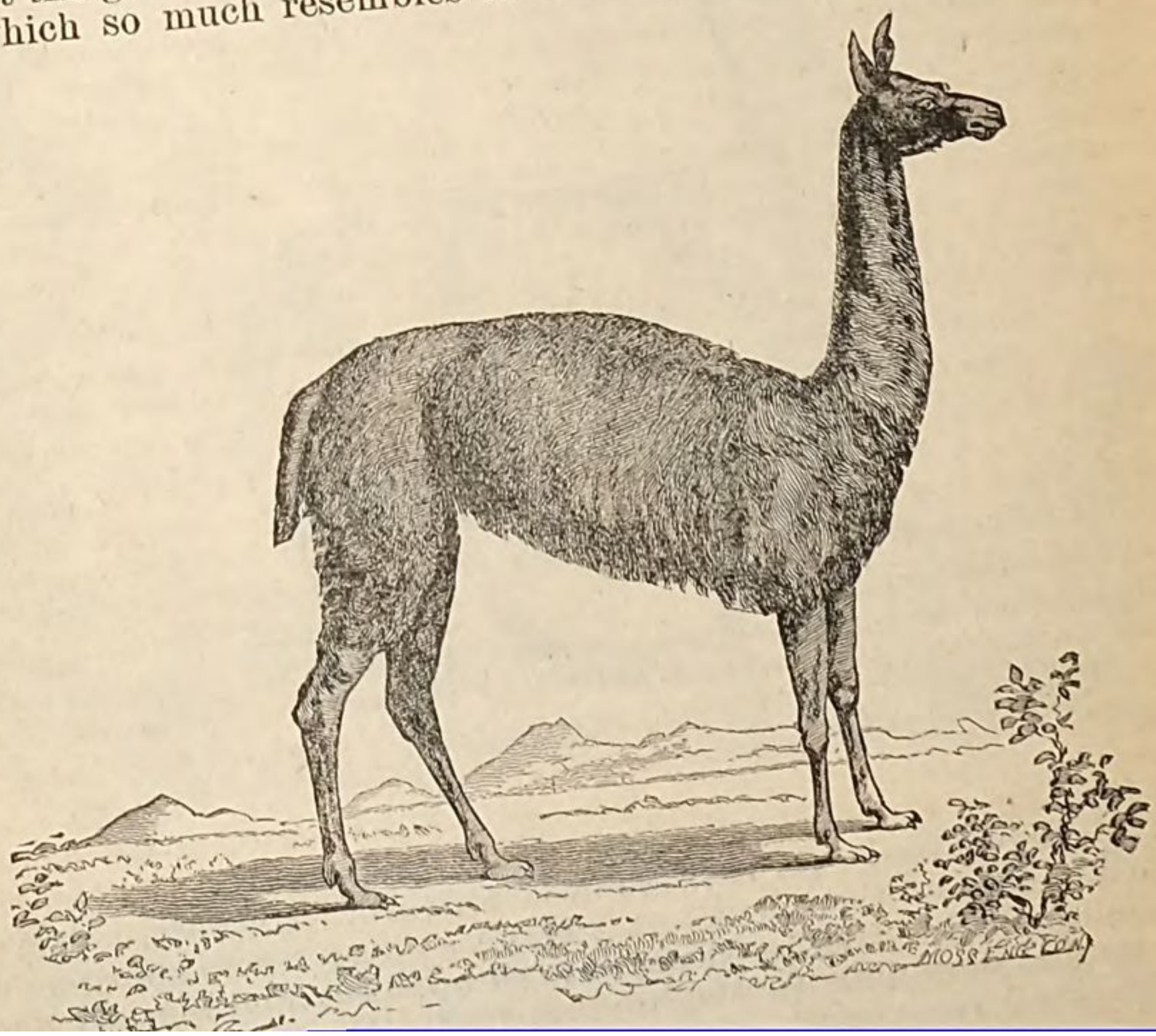
ALPACA.

that it always keeps its ears pointed forward. Its nose, however, is black, like that of the llama, but it is not so long nor so sharp-pointed, nor are its nostrils so dilated nor so high up. Its hind legs are shorter than its fore ones and are somewhat curved. Its hoofs are cloven, but the claws are very small. It also has a callous spot on its breast, but it is small. Its tail is very bushy. It is a ruminati[illegible] does not possess the habit [illegible]

esteemed, and this makes it the most valuable of the South American native sheep. The wool is long, soft, and abundant, being double the amount which the other varieties afford. On its sides, breast, and back its fleece is from 8 to 16 inches long. It is of various colors and sometimes speckled. Outside of the wool, and somewhat protecting it, is a long hair, which is exceedingly fine, so that the fleece is really a combination of hair and wool. It is sheared by the Indians twice a year—in June and December.

THE GUANACO.

The guanaco (*Camelus huanacus*) is $3\frac{1}{2}$ to 4 feet in length by about $4\frac{1}{2}$ feet in height. Except in a few rare cases, it is always found in the wild state. When young it is, however, very easily tamed; when old it is impossible. It is always of the same color, a brownish red. In its general appearance it resembles the llama, the most notable differences being a greater curvature of the back, a more shaggy fleece, and smaller feet. Its head is more oval and not so large. It also lacks the callous spot on its breast, and its nostrils are small. Its upper lip is split and it has the teeth of the llama, and, like it, it has the habit of spitting. Its disposition and habits, however, are very different, and show that the guanaco is of a different race. There is no European animal which so much resembles it as the grayhound, and, like it, its



them under foot in its efforts to escape. It is gregarious, and it is generally seen in droves or flocks of from two to three hundred. They are vigilant and exceedingly circumspect in their movements, and when feeding place one of their number as a sentinel to announce the arrival of an enemy. The flocks which are now to be seen on the frontiers have generally a very large excess of males, for the reason that being stronger and swifter of foot than the females, and perhaps lacking that curiosity which induces the latter to approach too near to a point of danger, they more readily escape the toils of the hunters.

Darwin, in his Voyage of a Naturalist Around the World (p. 166), gives the following very interesting account of the guanaco and its habits, viz:

The guanaco, or wild llama, is the characteristic quadruped of the plains of Patagonia. It is the South American representative of the camel of the East. It is an elegant animal in a state of nature, with a long, sleek neck and fine legs. It is very common over the whole of the temperate parts of the continent as far south as the islands near Cape Horn. It generally lives in small herds of from a half a dozen to thirty in each, but on the banks of the Santa Cruz we saw one herd which must have contained five hundred at least.

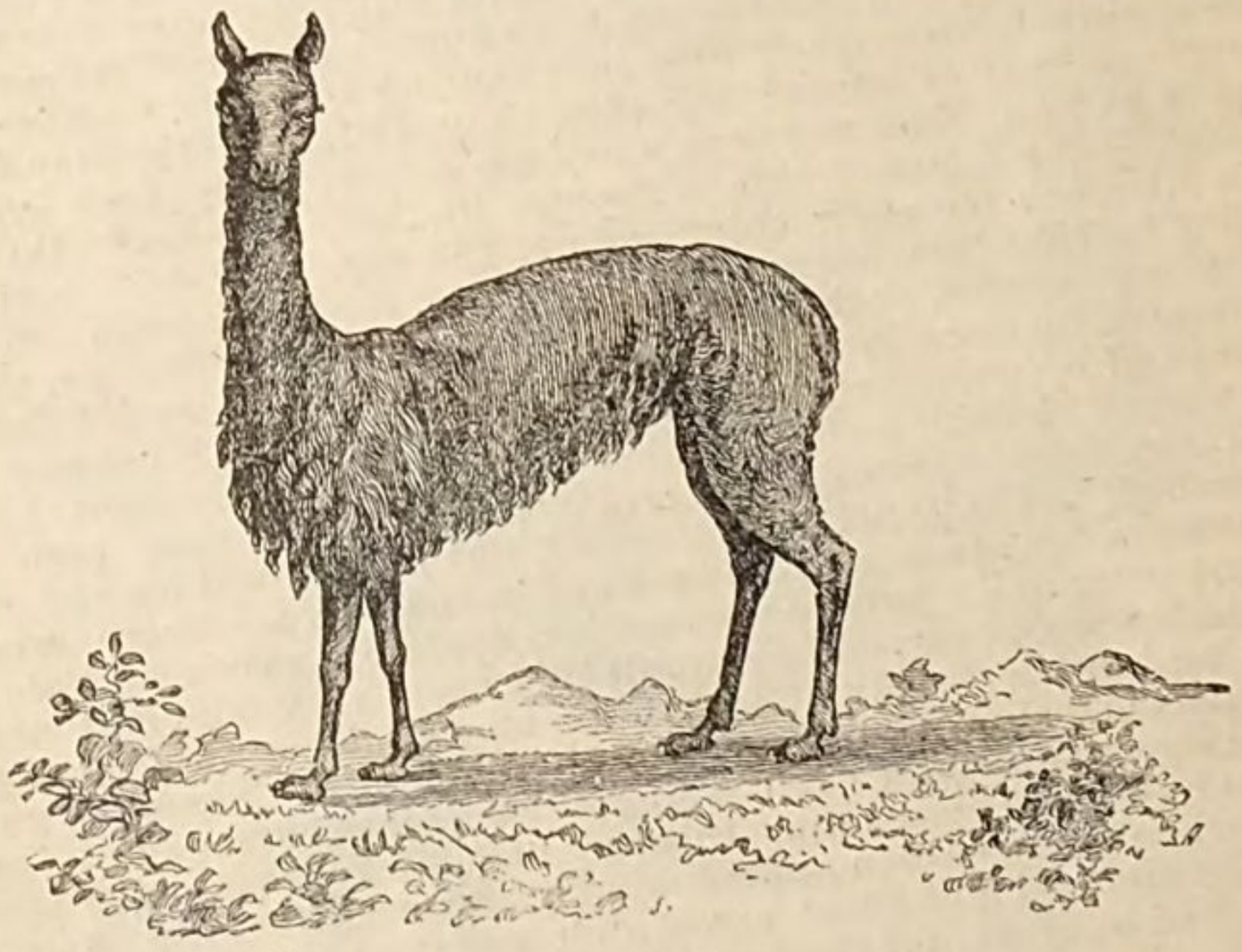
They are generally wild and extremely wary. Mr. Stokes told me that one day he saw through a glass a herd of these animals which evidently had been frightened and were running away at full speed, although their distance was so great that he could not distinguish them with the naked eye. The sportsman frequently receives the first notice of their presence by hearing from a long distance their peculiar shrill, neighing note of alarm. If he then looks attentively he will probably see the herd standing in a line on the side of some distant hill. On approaching nearer a few more squeals are given, and off they set at an apparently slow but really quick canter along some narrow beaten track to a neighboring hill. If, however, by chance he meets a single animal or several together they will generally stand motionless and intently gaze at him, then perhaps move on a few yards, turn around, and gaze again. What is the cause of this difference in their shyness? Do they mistake a man in the distance for their chief enemy, the puma, or does curiosity overcome their timidity? That they are curious is certain, for if a person lies on the ground and plays strange antics, such as throwing his feet up in the air, they will almost always approach by degrees to reconnoiter him. It was an artifice that was frequently practiced by our sportsmen with success, and it had moreover the advantage of allowing several shots to be fired, which were all taken as parts of the performance.

On the mountains of Tierra del Fuego I have more than once seen a guanaco, on being approached, not only neigh and squeal, but prance and leap about in the most ridiculous manner, apparently in defiance of a challenge. These animals are very easily domesticated; and I have seen some thus kept near a house in Patagonia, though under no restraint whatever. They are in this state very bold and readily attack a man by striking him from behind with both knees. It is asserted that the motive for these attacks is jealousy on account of their females. The wild guanacos, however, have no idea of defense; even a single dog will secure one of these large animals until the huntsman comes up. In many of their habits they are like sheep in a flock. Thus when they see men approaching in several directions on horseback they soon become bewildered and know not which way to run. This greatly facilitates the Indian way of hunting, for they are thus easily driven to a central point and are encompassed.

The guanacos readily take to the water; several times at Port Valdes they were seen swimming from island to island. Byron, in his Voyage, says he saw them drinking salt water. Some of our officers likewise saw a herd apparently drinking the briny fluid from a salina near Cape Blanco. I imagine in several parts of the country if they do not drink salt water they drink none at all. In the middle of the day they frequently roll in the dust in saucer-shaped hollows. The males fight together. Two one day passed quite close to me, squealing and trying to bite each other, and several were shot with their hides deeply scored. Herds sometimes appear to set out on exploring parties. At Bahia Blanca, where within 30 miles of the coast these animals are exceedingly infrequent, I one day saw the tracks of [illegible] had come in a direct line to a [illegible] ceived that [illegible]

THE VICUÑA.

The vicuña (*Camelus vicuña*, Linné) is the smallest and most delicately formed of any of the native sheep, but its wool is the finest, and on that account it is the most interesting and highly prized. Its height is only about $3\frac{1}{2}$ feet and $2\frac{1}{2}$ in length, and its body is much lighter. It only weighs from 75 to 100 pounds, while the llama weighs 250. In its general form and appearance, however, it corresponds to the other varieties. Its head seems large for the size of its body and is more oval, but it runs almost to a point, its snout being quite sharp, thus making its upper lip, which is divided, and its mouth very small. Its head, however, is erect, and is covered with wool of a reddish color, which is also the color of the fleece. Its nostrils and teeth are also small, and its upper gums are black. Its ears are sharp-pointed and stand erect, and its neck, where it joins the body, forms quite a depression. It has no callous spot on its breast. Its legs are delicate and seem very long, compared with the size of its body. Its feet are small. Its wool is the finest, the softest, and the most silky that is known, and when it has been cleared of the hair which grows with it, it is regarded as the most valuable in the world. The wool on the back is without any mixture of hair, while on the rest of the body it is even longer than the wool, thus somewhat protecting it. The wool on the belly is white.



VICUNA.

The vicuña does not possess the gracefulness of the other classes of native sheep. It lacks the majestic appearance of the llama, the soft and expressive look of the alpaca, or the independent and lively carriage of the guanaco. Its eyes are black, but without expression, rather round than oblong, and as the pupil occupies all the iris, it gives [illegible] but drinks very little water. It is gre-

this province, an Irishman, for many years a sheep-farmer on a large scale, and who made a scientific study of the best ways and means of refining the wools of the Argentine Republic, took likewise an enthusiastic interest in the native varieties of sheep, which he also raised on his *estancia*. From a paper which he prepared on the subject of these wools I give the following as his estimate of them:

WOOL OF THE LLAMA.

It is what is called ordinary, long, mixed with hair, very flaccid, and lacking elasticity; generally hazel-colored, but the belly-wool is always white. It lacks the oil and dirt of that of the ordinary sheep. It is not exported from the country, but it is manufactured by means of hand looms in the interior into blankets and coarse woolens.

WOOL OF THE ALPACA.

This wool, which is generally black, is very long, sometimes growing to the length of 12 inches and more. It is somewhat wavy, but of the class which in this market is called smooth (*lisa*). It does not possess the property of felting or of being fulled, except in a very imperfect manner. It is very elastic, but takes color with difficulty, and only after being very thoroughly scoured. It is soft, silky, and lustrous, which characteristics it does not lose upon being colored. It is liable to break under the comb, but this probably arises from its extreme length and the fineness of the fiber. There are still considerable quantities of this wool sent to Europe, but the greater part of the annual yield is manufactured here in the country, the wool being in great repute for making blankets, rugs, carpets, and various species of cloth.

WOOL OF THE GUANACO.

This is at present only obtained from the skins of the wild animals after being trapped and killed. It is of the same nature and color as that of the vicuña; but with this difference, that it is shorter, coarser, and of a color which is not so strong. Besides, it is so mixed with hair as to lose considerable of its value. It is also so dirty and so full of scurf as to make it sometimes quite unmerchantable; but this perhaps is not the result of any infirmity in the animal, but on account of its having been taken at an improper time for the wool. But when thoroughly scoured the wool is very fine and soft, and is greatly employed in the manufacture of hats. A thick muslin is also manufactured from it, quite impervious to water, which is used for umbrellas. Considerable quantities are exported to Europe, where it is greatly esteemed. It would be greatly improved if the wool were separated according to its qualities and assorted as is done with that of the vicuña.

WOOL OF THE VICUÑA.

It is of a very fast color and exceedingly appreciated on account of its fineness and the silkiness of its touch. Indeed it gives a fleece more valuable than that of any other animal in the world—"more estimable," as has been truly said, "than the fur of the Canadian beaver, the fleece of the *brebis des Calmouks*, or of the Syrian goat." The wool is finer than that of Cachemire or of the goat of Bucharia. Perhaps its only defect is the color; and even yet the secret of giving it any other color than black has not been discovered in Europe, although the Indians of Peru managed to give it most brilliant colors. One inconvenience in regard to this wool is that it is more or less mixed with hair, but this could be readily obviated if the animal was properly domesticated and refined. It has the property of being felted and fulled in a very remarkable degree. If this wool could be produced *white* it would be almost invaluable. The diameter of the fiber is as follows: On the back, 7 to 8 degrees; on the neck, 5 to 6 degrees; on the legs, 8 degrees, eirometer of Dolland. Wool of the neck $\frac{5}{10,000}$ to $\frac{6}{10,000}$ of an inch; of the back, $\frac{7}{10,000}$ to $\frac{8}{10,000}$ of an inch; of the leg, $\frac{8}{10,000}$ of an inch; the red hair on the back $\frac{35}{10,000}$, and the white hair of the belly, $\frac{26}{10,000}$ to $\frac{30}{10,000}$ of an inch.

NATIVE MANUFACTURES OF THESE WOOLS.

Not a great quantity of the wool of any of these animals is shipped from the country; the exact amount how[illegible] reason that *the*

Some of these fabrics are a marvel to all who examine them. By separating the filaments of different tints of the vicuña wool, and making threads of them with the spindle, they are enabled, by means of a common hand-loom, to weave a cloth which, aside from the striking arrangement of its colors, is far superior in closeness of texture to the best woolens of commerce. The best of these native fabrics are made in Catamarca and some of the other upper provinces, but not in quantities to meet the demand. The principal merit of these native ponchos, shawls, &c., is that they are entirely impervious to water, at the same time that they are light and fine; and they readily command exorbitant prices, ranging from one to five hundred dollars, gold, according to their finish, thus quite rivaling the camel's-hair shawls. To make them, however, is the work of many months of exacting, hard labor. As the hunting of the vicuñas is somewhat difficult, and they are becoming somewhat scarce on account of the recklessness with which they are slaughtered, the price must soon go even beyond these figures.

DOMESTICATION AND REFINEMENT OF NATIVE SHEEP.

In regard to the domestication of these animals and the refining and improving of their fleeces by a proper system of breeding, there seems to be no question. So far as the llama and the alpaca are concerned, the ease with which they are domesticated is historical. When the Spanish invaders conquered the country they found both of these animals in the service of the natives, either employed as beasts of burden or carefully attended under the direction of shepherds for the fleeces which they furnished. They are still to be seen domesticated in flocks through Peru, Bolivia, and some of the Andine provinces of the Argentine Republic, cared for and folded just as the European variety is here. It is true, however, that they have been greatly superseded as beasts of burden by the mule, and as wool-producing animals by the modern sheep. No particular pains have ever been taken to domesticate the guanaco and the vicuña; but the efforts of the early Jesuits in this line prove the easy success with which it can be done. The ancient Peruvians do not seem to have tamed them, but, although they roamed in a wild state, it was not permitted to kill them, except under certain conditions, but in the proper season the great flocks which were found in the mountain passes were surrounded, carefully captured, sheared, and then allowed to go free again.

Prescott, in a very graphic manner, informs us how these great hunting expeditions were managed. In his Conquest of Peru, Vol. I, page 147, he says:

> Although roaming without a master over the boundless wastes of the Cordilleras, the Peruvian peasant was never allowed to hunt these wild animals, which were protected by laws as severe as were the sleek herds that grazed on the more cultivated slopes of the plateau. The wild game of the forest and the mountain was as much the property of the Government as if it had been inclosed in a park or penned within a fold. It was only on stated occasions, at the great hunts, which took place once a year, under the personal superintendence of the Inca, or his principal officers, that the game was allowed to be taken. These hunts were not repeated in the same ... in four years. At the appointed time all ... it might be, of fifty

their solitary haunts among the mountains. The wool thus collected was deposited in the royal magazines, whence in due time it was dealt out to the people. The coarser quality was worked up into garments for their own use, and the finer for the Inca; for none but an Inca noble could wear the fine fabric of the vicuña.

On the subject of domesticating these native sheep I translate the following from what Mr. Harratt has written:

Experience has taught us that every wild animal, provided he is not very savage or provided by nature with facilities for his own protection, can be tamed and even domesticated. We have in the vicuña and other varieties of the South American sheep an illustration of this fact. When any of these animals are taken very young they can be tamed without the least difficulty. Up to the present time no attempts have been made to form very large flocks of them, at least not since the Jesuits were expelled from the country. I know, however, that a sheep farmer in Quillota, in the Republic of Chili, for an experiment, tamed twenty guanacos, which would every morning go out to graze and return at night unattended. Once tamed, the animals in their successive generations continued in the same domestic state. The Jesuits at the time of their expulsion had six hundred tame vicuñas, and had they remained in the country the domestication of these animals would have been an assured fact.

The annual shearing of the vicuña, without any other attention, would cause a great improvement in the wool, making the fleece much more regular and even, and thus it would lose much of the hair which grows with it, the value of the fleece being greatly enhanced thereby. The wool of the alpaca, now so little cared for, also admits of great improvement and is deserving of attention. Since time immemorial the Indian has preferred a black color and to have his clothing black, but it is equally as easy to raise white alpacas as white sheep, and in the same manner and by a similar treatment it is equally easy to cause the hair to entirely disappear from the fleece, which would increase the value of the wool threefold. Spain set the example of crossing the breeds of sheep in order to improve the quality of the wool over two thousand years ago, and Columela has immortalized his name by what he has done in this respect by establishing a breed of sheep which has extended over the entire world. The Spaniards, however, seem to have lost their enterprise, and have allowed other nations to surpass them; at least they have left for other nations and future times the improvement which can be made in the quality of wool by the crossing of sheep with the vicuña.

Art and the experiments of man have made great modifications in the productions of nature; and in no department of science have there been greater advances made than in that of the crossing of different classes of animals, by which the hybrid becomes more valuable than the original stock. We know by experiment that the fleece of the alpaca crossed with the male of the guanaco, or that of the llama crossed in the same way, is a great improvement on the original alpaca or llama. We also know that by crossing a white llama with a red guanaco the foal becomes white. The native sheep do not belong to the same genus that the camel does, although many persons think so; or, at least, they partake equally of the properties of the sheep. The vicuña is not larger than some merino sheep, produces wool, is timid and inoffensive; has the same bleat, and in the same manner strikes the ground with its foot when it is enraged. Why is not the alpaca equally susceptible of improvement? Although it is not possible, without further experiments, to know the full effect of crossing the alpaca with the modern sheep, it is not to be doubted, from what we already know, that a breed could be produced which would exhibit a great improvement in the qualities of the fleece. We all know what Bakewell has done in this respect, by selecting the most perfect individuals of the same family for breeding purposes, and it seems almost certain that every class of animals, domestic or wild, is susceptible of improvement. Thus, the hair can be made to disappear from the fleece of the vicuña by selecting animals for propagation which have but little hair upon their bodies. And as the rule is general that the offspring partake of the peculiarities and characteristics of their parents, the quantity of the hair would go on decreasing in successive generations, until it disappeared altogether. And in all probability it would be equally easy to produce white wool from the vicuña, for that animal is not unfrequently of that color.

GENERAL INDIFFERENCE ON THE SUBJECT.

While these are the vie[illegible]

the only sheep which occupy its great natural pastures are the European varieties. Except in the *quintas* of wealthy proprietors or in the paddocks of the public parks, but little is now seen of the native sheep which once had the exclusive range of the vast pampas of this part of South America. In the wilds of Patagonia and in the fastnesses of the Andes what remain of these remarkable animals are now almost exclusively to be found. In the upper provinces and in Peru and Bolivia they are occasionally to be met with in a domestic state, and sometimes, especially the llama and the alpaca, in considerable numbers; but no efforts are made to improve their condition or the quality of their wools. The business requires more patience and a greater amount of scientific labor than the rude natives and half-breeds of the far interior are qualified to bestow upon it. As were their fathers before them, they are content with the mere raising of these native sheep. The wool mixed with hair which they obtain from their shearings is amply sufficient to meet the wants and conditions of their primitive mode of life, and they are too indolent to make experiments about a matter in regard to which they are utterly indifferent. And so, unless a new and more investigating race of men come in to take advantage of the situation, nothing will ever be done here in the country for the refinement of these native breeds of sheep.

ACCLIMATIZATION OF THE ANIMALS ELSEWHERE.

Whether these animals would bear a transfer to other countries, where they might be better appreciated, is a question which does not appear to be fully settled. I believe, however, that through the efforts of naturalists they are now to be found in some of the parks and zoological gardens of the large cities of Europe and the United States, though in those places they are only kept for show. This, however, would seem to prove that they can be acclimatized. In examining the files of an old paper a short time ago, I saw a notice that a Mr. A. J. Duffield, an Englishman, had greatly interested himself in the native sheep of this part of South America, and was then undertaking the experiment of transporting a flock of alpacas to Australia. A letter of his on the subject, written from Potosi nearly twenty years ago, gives a great amount of information as to these animals, and is as accurate in description and detail as though it were just written. It is so full of interest that I made a copy of it, and give it below:

MR. DUFFIELD'S LABORS.

POTOSI, *November* 25, 1862.

MY DEAR SIR: I wrote you in July last from the desert of Atacama, the dangers and miseries of which, to one who has hardly seen the bush, much less lived in it, were almost insupportable. I was, however, saved from the danger of leaving my bones to whiten in its burning sand by a little pluck on my part and great intelligence and endurance on the part of my mule—an animal the value of which is hardly known in our part of Europe and which for purposes of exploration in Australia would be invaluable. You will hardly credit it, but my mule was nearly three days and two nights without taking water and twenty-four hours without food; and she carried me for those forty hours at an average rate of 6 miles an hour.

In the intense heat of Atacama, I met llamas everywhere, and was

They had, however, been allowed a promiscuous intercourse with the llamas, and it was easy to see at a glance how much of grace and symmetry the animal had lost by the connection, to say nothing of the great damage done to the quality of the wool. From what I remember of this family in the royal park of Melbourne, I have very serious doubts whether you have any pure alpacas in Victoria, or if one or two males, they are of very inferior breed.

What has pleased me and rewarded me most for the horrible journeys I have passed is in being able to verify by personal observation the important fact that the alpaca will live and thrive in the hottest and coldest climates, enduring all rigors and trials of the most rapid change from one extreme to the other, provided the climate be dry. Here, from the coast to the peak of the Silver Cerro of this once silver city, a height of more than 16,000 feet, the air is so dry and so charged with electricity that your hair goes off in small shocks when you comb it. Even in the rainy season, which continues four or five months, this quality of the atmosphere continues, so much so that on the snowy heights of Cura Guara or the slopes of the highest range of the Andes the cold is not so penetrating or trying as it is in London in the month of November. Although the city of Potosi is at an elevation of some 14,000 feet above the level of the sea, you never see a fire or a stove in any house in the coldest season; and though you experience all the four European seasons of spring, summer, autumn, and winter in one day and every day of the year in this extraordinary city, the rapidity and violence of these changes produce no ill effects on the health of man or the inferior animals. In spite of the peculiar dryness of the atmosphere, which now appears necessary to the cultivation of alpacas, there was a time when the Peruvians were amongst the first agriculturists of their age, when the alpaca browsed in the moist and filthy atmosphere of the Peruvian coast; and if this intelligent and valuable animal could live and thrive there, there is no part of Australia or New Zealand where it would not equally live and thrive.

If you could only see the hot sandy desert where I met with these animals, or the bleak, barren, and horribly desolate mountains which they climb in search of a very precarious living for eight months in the year, you would wonder how these creatures live. Here and there they will find a few dry ferns, growing between barren rocks, or sheltered from the scorching heat between large stones. The ice plant and its relations, with a few other green things, that only just peep out of the earth, and which no sheep could nibble, form the chief food—together with any hardy shrub which the Indian has not cut down for fire-wood—for the alpaca. In short they will live where a sheep would die, and one of the great benefits which this animal will confer upon Australia will be to make as valuable in the fullness of time its waste, unconquered, and almost impenetrable lands as its glorious, broad agricultural plains.

The flesh of the alpaca and llama requires to be known before any one who has not tasted it can believe in its flavor. One of my friends, at whose house I spent a few days in the desert, was greatly concerned on finding on the day of my arrival that the only joint for dinner was the choice cut of a llama. He said nothing until dinner was over and then "hoped I had dined well." The truth is I had been served twice to this Indian fare without knowing whether I was eating fine mutton or luscious veal, for it had a dash of both. I ate llama all the time I was there, and everywhere I go I call for llama. It makes very good *charqui* (jerked beef), and the *caldo* or soup made from it is very fine. One thing is certain, I hope, that the world is not going to end its days on beef and mutton, and the sooner it can add a roast of llama or alpaca to its Christmas fare the better for us and it. * * *

I think I can now safely inform you that our expedition will set sail for Melbourne in March next. We have been retarded by the rains, and we must march through floods of water, otherwise we should get no food by the way for our flocks. We have secured a good number of pure whites and of the most valuable breed. This will become, if we have a prosperous voyage, the most valuable stock of which Victoria may boast. Our expenses and difficulties have been great, and it is yet uncertain if we shall ever be reimbursed or not; but I have no reason to despair or even complain. My friend, Mr. G. H. Williams, on whom the labor and responsibility of our enterprise have mainly rested, and to whom Australia will be indebted for pure alpacas, when they arrive there, has so far conducted it so admirably that I have no fear of the result.

WHAT WAS THE RESULT?

What was the "result"? What ever-

world generally that its sequel were worth finding out. If the animals arrived in Melbourne—as the rearing of sheep has since fully monopolized the pastoral attention of the people of that country—it would seem that they after all did not answer the purposes or meet the success which was anticipated. But this, even if true, is not of itself sufficient to convince us that the acclimatization of these animals in other countries is impossible. The facts set forth in Mr. Duffield's letter, as to the hardiness of the alpaca and other varieties of the South American sheep, are all that is needed to show that, under proper conditions, they can be reared elsewhere. Provided the climate is dry, no extremes of heat and cold, no sudden fluctuations of temperature, no coarseness or even scarcity of food, seem to affect these valuable animals.

COULD THE ANIMALS BE DOMICILED IN THE UNITED STATES?

I merely make the suggestion, that in these respects, if we had ransacked our inventiveness to describe an animal which should be preeminently adapted to some portions of our own country we could hardly have imagined a breed more suited than these South American sheep. I refer particularly to the desert portions of Texas, and of New Mexico and Arizona, whose arid soil and general scarcity of water are a great drawback to their proper development. Introduced under favorable circumstances, any or all these classes of animals might be able to fill an industrial gap in those regions which otherwise we can scarcely expect to find a filling for; and thus even the most unpromising portions of those Territories might in time attain to a development, through the valuable wools which these animals afford, that there else can be but little hope for, while in other parts of the country, wherever ordinary sheep may be produced, the introduction and acclimatization of these valuable wool-producing animals would give us a new source of national wealth.

GRADUAL EXTERMINATION OF THESE SHEEP.

Meanwhile, however, throughout the Argentine Republic, in the absence of any laws regulating the capture and killing of these native sheep, especially the guanacos and vicuñas, their numbers are rapidly becoming less and less; and at the rate at which they are at present annually hunted down, unless laws for their protection shall be enacted, it will not be many years before, like our own buffalo, they will in this part of South America become quite exterminated.

I translate the following from Señor Nap's Republica Argentina, page 304:

The attention given to the raising of llamas in this country is insignificant, although the mountain regions of our northern provinces form a part of their *habitat*. Only the province of Jujuy counts among its cattle 16,000 llamas, whose value is $40,000 gold. Some intelligent *estancieros* of the littoral provinces—above all in Buenos Ayres—have latterly made some excellent attempts in their establishments to raise llamas as well as alpacas. It is to be deplored yet, even more than the neglect shown to [illegible] whose wool is so fine and valuable, is hunted as [illegible] Its near extermi-

We ought, therefore, to expect that before long the act of killing a vicuña will be punished with all possible severity. It is sufficient to shear the animals when caught and thereafter place them at liberty, if it be not desirable to tame and breed them; but their butchery is an act of brutality which ought to be severely punished.

In Patagonia not merely the Indians but now also the settlers on the far frontiers are making sad havoc among them, if we may judge from the quantities of skins, rugs, and furs manufactured of strips of the guanaco pelts in colors called *quillangos*, which are sent to this point for a market. In the northwestern portions of the Argentine Republic this wholesale slaughter is not indulged in; the animals are too essential in the domestic economy of each family for any reckless destruction of them, while in Peru and Bolivia I believe there are laws for their protection. The llama and alpaca especially, being thoroughly domesticated, have the privileges and rights of household animals.

As I said at the beginning of this report, considering the marvelous excellence of the wools which these animals produce, the exquisite flavor of the meat they afford, the ease with which they can be domesticated, and the possibilities they offer for still greater refinement of their fleeces, it is strange that nothing whatever is done for their proper propagation and production.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, March 21, 1887.

GRASSES OF THE ARGENTINE PAMPAS.

REPORT OF CONSUL BAKER.

The wealth of the Argentine Republic consists in great part of its pastoral industry. There are in the country, according to the latest official estimate, 14,171,000 cows, 4,186,000 horses, and 70,910,000 sheep, whose total value is put at $331,000,000, and yet it will surprise the cattlemen of the United States to learn that this immense number of animals, year in and year out, are never fed a mouthful of food, but feed themselves, and live, as best they may, entirely on the natural grasses which grow spontaneously. During the frosts of winter and the droughts of summer it is the same. The *estanciero* makes no provision for either, and his animals, running ever at large over his broad leagues of land, must accept the pasturage, whether it be better or worse, which they afford. It is an exceptional year, however, when his animals cannot, after some sort, "pull through" from one season to another.

EXTENT OF THE PASTURAGE.

What this pasturage signifies will be better understood when it is known that these natural grasses cover over 63,120 square leagues, against 645 square leagues devoted to crops and agriculture. [To] say, the area of the latter is not [illegible]
It were worth

Cattle are never stall-fed in this country. On this subject I find the following paragraph in the Buenos Ayres Herald of the 26th:

One of the necessities of the times is the fattening of cattle for meat. We have no beef worthy the name, while we have cattle so many that we cannot sell them. We hear of a lot of bullocks numbering a thousand which cannot be sold at $11.50 per head, and yet we have dear beef and poor meat in this city. The cattle which reach us are unfit for food, but are good candidates for feeding, and if those who have lands near the city would go into the business of stall-feeding cattle for the market it would prove a good business, and our reasons for so saying are that the price of good beef is greater here than in the United States, where the price of land and of food is greater than here, and yet where they find it a good business to fatten cattle. It is time that we had done with calling skin and bones beef.

Cattle are now quoted for little more than the value of the hides, $6 per head being a common price for native cattle.

Indeed there cannot be anything more exhilarating than to career on the back of a fine horse across these plains of Buenos Ayres on a bright clear morning, or in the cool of a summer afternoon, a cloudless sky of deep azure, an atmosphere marvelously light and pure, and a soft breeze communicating a sense of indescribable buoyancy, the vast plains, boundless as an ocean, inspiring an irresistible feeling of joyous freedom as it fades away in the distance. I may premise that the geological formation of these great pasture lands of the Argentine Republic, known to scientists as the Pampean, consists of a yellow calciferous clay, more or less mixed with sand and saline substances and capped with a rich alluvial deposit. The soil is entirely destitute of indigenous woody plants. I do not know of a single tree or bush that belongs to the pampa. Without natural trees, without ligneous plants, its chief characteristic is the predominance of the *Gramineæ*. On this account the flora is monotonous and uninteresting to botanists; but it is this very predominance of the social plants which makes these vast plains so valuable to the cattle-grazer. It is grass, grass, grass, everywhere! Even the poorest parts are not without some vegetation capable of furnishing pasturage. It is this fact, coupled with the mild climate—mild even in winter—which makes it possible to stock these natural pastures so heavily.

HARD AND SOFT GRASSES.

This perennial pasturage consists of two distinct classes of grasses. One of them has received the general name of "hard grasses" (*pasto duro*), and the other that of "soft grasses" (*pasto blando*). The first kind produces up to the period of its flowering an excellent nourishment for animals—better on account of its length and hardness for cattle and horses than for sheep. It dries after flowering, and then its leaves become as hard as straw and lose the greater part of their nutritive qualities. Nevertheless animals can still subsist on it in this state for several months, and in an emergency it will ordinarily carry them through the winter. The soft grass is composed principally of *Gramineæ*, more or less tender and savory, and which the natives of the country know under the name of *gramillas*; but it also includes some herbaceous [illegible] species of *trebol*, [illegible] species of *Erodium*,

10 feet in such dense array as to be impenetrable except in the cattle track. These beds of thistle sometimes extend leagues and leagues, and at the time of flowering, as far as the eye can reach, present an almost unbroken sea of rose-purple flowers. In some districts a day's ride along a road or track on either side of which stretches this forest of thistles, leaves the traveler still with the same forest stretching to the horizon. Thousands of cattle browse on these thistles, working tracks in various directions through them, feeding on them and the grasses which grow between. About midsummer they seed, wither, and die, a heavy rain and a stiff breeze quickly knocking down the stalks, while the softer stems soon break up under the action of the sun, the cattle and sheep growing fat as they feed on the oily seed and withering leaves. Other grasses, distinct in variety, then spring up and cover the ground, obliterating almost every trace of the fallen thistles. But in the autumn and winter the thistle seed again germinates, and the tender plants furnish a winter food for the cattle and sheep. But if the rains should happen to fail and a drought ensues (a misfortune which not unfrequently occurs), the soil becomes completely bare, and then the animals are reduced to eating such dry remains of these various grasses and annual plants as they can find. There are broad districts, particularly in the southern portions of the province of Buenos Ayres, which every summer are so entirely stripped of vegetation that the animals die of starvation, unless they are transferred to other points where the pampa has had the benefit of summer rains.

MIXTURE OF THE DIFFERENT CLASSES.

In the virgin fields of the pampa the hard and soft grasses are generally mixed, and by constant grazing the former are gradually exterminated. Thus throughout the sheep-ranges of this part of the province of Buenos Ayres only the soft grasses are now to be found, the pasturage having become thus refined by long use. In the outside country, which is more particularly devoted to the raising of horned cattle, the hard grasses predominate, the soft grasses only being found there growing between the isolated tufts of hard grasses. This is especially the case with the *alfilerillo*, a very succulent grass, which is only seen between the tufts, and which, spreading everywhere throughout the pampas, always springs up fresh, in all seasons, after a rain. This is also the case to some extent with the *trebol* or clover (spotted medic), which, from its luxuriant trailing growth and the great abundance of its seed, protected by prickly spiral pods, propagates itself very readily wherever it is aided by tufts of grass. It has, however, this disadvantage, that the seed-pods are a species of small bur (*caratella*), which sticks to the wool of the sheep and diminishes its value. In a day's ride over the pampas you will see all these various classes of hard and soft grasses growing up more or less together or alternating according to the nature of the soil, the hard grasses being more generally seen in the more elevated and the soft grasses in the more depressed portions of the country.

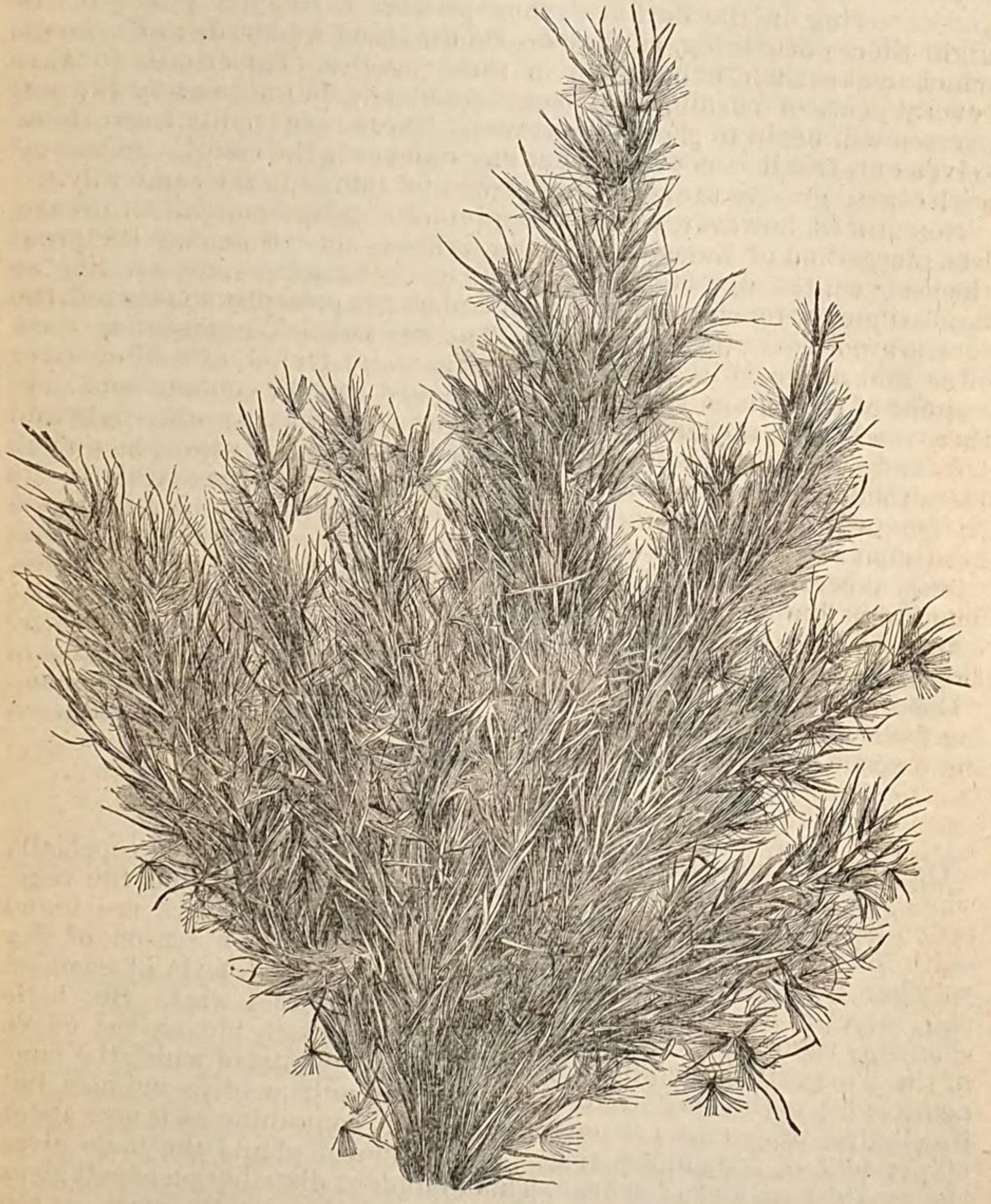
BLACK THISTLE.

times called the "black" *cardo*. When young, cattle will eat it, but when it has matured its seed it is full of sharp nettles, which make a passage through it quite a disagreeable undertaking even for cattle. In the absence of timber the "camp-men" gather it in large quantities for fire-wood in winter. It is also used for burning brick.

THE PAMPA GRASS.

There are other tracts of country which, lying very low and wet, produce a coarse, reedy herbage, composed principally of species of *Dypa*, *Phalaris*, *Carex*, and pampa grass, which affords but little if anything in the way of nourishment; but growing very tall and spreading, furnishes shelter for whole herds of deer and a cover for partridges and martinets, while in the marshy grounds and lakes (*lagunas*), among these reeds, are to be seen myriads of wild ducks, plovers, cranes, spoonbills, flamingoes, geese, swans, and snipe in the season. These long reeds are used for thatching roofs, partition fences, and basket-making. But the pampa grass (*Gynerium argenteum*) is well deserving of special mention. I know nothing among our home flora which compares with it.

The pampa grass is a perennial, whose special habitat is the Andes, among the cordilleras of which it is found even 14,000 feet above the sea-level. It seems, however, to grow anywhere throughout the pampas. It is a most showy plant, growing in immense tufts, and when in blossom appearing like white sheets hung on poles, and can be seen at a distance of many miles. The leaves are hard, wiry, very rough at the edges, scarcely half an inch broad at the widest part, of a dull gray-green color, and edged all along by sharp teeth, which if pressed will cut like "a two-edged sword." The flowers, which appear in March and April on panicles, shoot up to a height of from 3 to 4 feet. They are of silvery whiteness, and are densely covered with long colorless hairs. The dimensions of one of the clumps (for they grow in clumps) are about as follows: Height of the stalk to the summit of the plume flowers, 11 feet; height to the curl of the leaves, 7 feet; diameter of the tussock, 9 feet; length of one of the leaves, 9 feet; length of flower-plumes, 4 feet; number of flower-plumes to a clump, from 15 to 20. Such is the magnitude of this queen of the grass family. Its elegance is more noteworthy than even its size—every one of its long, thong-like leaves curling gracefully from the center to the circumference, forming a thin but huge tuft that defies the pencil of the artist to do justice to it. Add to this the glittering whiteness of the panicles, which dart into the air on their slender stems far above the verdant tuft of the foliage, and shake their thousands of bright scales in the sunshine like the work of some ogre silversmith. As an ornament to a well-composed scene of rock and shrub nothing can equal it. With proper room and supported by fine masses of shrub its beauty is superb. I have been thus particular in the description in order that you may see how entirely fitted this plant is for garden decoration on account of its majestic outlines and



PAMPA GRASS (*Gynerium argenteum*).

BURNING OF THE "CAMPS."

The tracts of land covered by these tall sedgy grasses are called *pajonales*, and when they do not lie too low they can be converted into excellent pasture by burning. This is generally done in the winter when the grasses have the sap out of them. These fires travel with the course of the wind, and, with the flames rising to a considerable height and careering in the darkness, they produce a singular effect in the night-time, uncovering, as they do, thousands of wild birds and animals which make their habitations in these jungles. Sometimes it takes several years of burning to redeem these lands, but ultimately the soft grasses will begin to show themselves. These fires readily burn themselves out, and it is not often that any damage is the result. "Camps" with coarse grasses are sometimes fired and refired in the same way.*

Sometimes, however, by the dropping of a lighted match or the careless disposition of the end of a cigar, a fire is started among the great thistle beds, the dry stems of which, in the summer-time, are like so much tinder or touch-wood, and then, unless it is promptly smothered, the losses are frequently very great. The dry thistles, intersecting each other and matted with the long dry grass and trefoil, extending over leagues of the pampa heated by the sun, are ripe for conflagration. If there is a breeze, the moment the grass ignites the blaze spreads right and left, and sweeping onward with a tremendous roar, it soon gains such breadth and such headway that it becomes almost irresistible in its course. Cattle, horses, and sheep fly terrified before it, the frightened herdsmen and shepherds galloping through the smoke, being sometimes utterly powerless to prevent them from being enveloped in the flames. The fire is finally subdued, if indeed it is suppressed before it runs its course, by the "camp-men" killing a number of horses, and then hitching two horses to their forelegs and two to their hind legs by means of "lassos," thus dragging the carcasses ahead of the track of the oncoming flames, in this manner clearing away the dried vegetation and leaving a space over which the flames do not pass.

SALINE PLANTS.

On towards the south of the province of Buenos Ayres, and especially when you enter the confines of Patagonia, both the soil and the vegetation become more and more salty. Saline efflorescences are found scattered over the whole of the province, and after a season of dry weather they become quite conspicuous; but real beds of common salt, more or less fine, appear to the far south and west. But little chance is there for sweet grasses where these exist, but on the edges of these deposits is found a vegetation of salt plants, of which the jume (*salicornia*) is the most common. It has no nutriment for animals, but its alkaline properties are most remarkable, containing as it does about 60 per cent. of soda and potash. Of all known plants the jume gives the greatest amount of ashes. This abundant distribution of salt gives [illegible] advantage over those of the north, as the

towards the Andes, giving them a great altitude of many thousand feet before they reach the foot-hills, but the surface is also slightly undulating. At first sight the elevations and depressions are scarcely remarked, but they are soon recognized by the difference of vegetation. These undulations are of the greatest practical importance to the *estanciero*, since at the bottom of each one of these depressions small lakes (*lagunas*) are found, which provide the necessary water for flocks and herds which feed around them; and when these fail it can nearly always be procured by sinking shallow wells. From these the water is generally brought to the surface by means of buckets made of rawhide, suspended by tackle over a wheel and operated by horses, though of late American windmills to do the same work, by means of pumps, can be seen in all directions over the "camp." It is in these valleys especially that the tenderest herbage, mixed with flowers, is found. To this thick, grassy sward some other plants of different families are added, constituting a varied vegetation, whether it be composed of creepers with pulpous leaves, or of herbs, like the purslain, which form an appetizing nourishment for both man and beast. And then, charming the sight by the rich adornment and brilliant colors of their beautiful flowers, there will also be found the succulent *Portulacaceæ*, the vervains with their blood-red petals, the family *Compositæ* with their rich yellow blooms, and the papilionaceous plants, whose flowers look like butterflies fluttering in the sunshine. But nowhere is found that dense, compact, and magnificent sod which adds such a beauty to the pastures of blue-grass in the United States. The grass here rather grows in tufts, covering the soil like thousands of little islands, though at a little distance these grasses have the appearance of a compact sward, and are of a varied color, according to the season—bluish and clear green when the leaves begin to grow; a little later, brownish green, the color of the full-grown plant; and finally white as silver when the seeds ripen, and looking almost liquid at a distance as they undulate in the breeze. But when the midsummer or autumn has come, with a scorching sun and a want of rain, the aspect of the country undergoes a complete change. Then all is parched and brown. The thistle and the trefoil have disappeared, and the hard grasses have become dry and yellow. With a few summer showers, however, another growth of grasses will show itself under the shelter of the withered tufts, and the animals will be in no want of food.

POISONOUS WEEDS.

It must not be supposed, however, that the pampas are without pernicious weeds mingled with the nutritious pasturage which they afford. There are poisonous plants as well, and in some districts the extent of land occupied by them is so great as to be beyond the ability of the *estancieros* to effect their eradication. Perhaps the worst of these is the *miomio*, or *romorillo*, which hungered stock will sometimes feed on, and which is a deadly poison. There are others not so poisonous, but almost as dangerous, whose botanical names I do not know, but which are called by the natives *abrojo*, *sepo caballo*, *biznaga*, &c., and which, where they exist in great quantities, render sheep farming utterly impossible, and only admit of cattle-grazing at

is dying and the thorns are dropping off, and then the seed-pods attach themselves, like those of the *abrojo*, thus quite ruining the fleece. But the districts where these and like pests of the sheep-farmer abound are exceedingly limited compared with the wide stretches of nutritious pasture which everywhere are to be seen.

DROUGHTS AND STORMS.

With the wealth of pasturage, indeed, which exists in the Argentine Republic, and especially the provinces of Buenos Ayres, Santa Fé, Entre Rios, and Corrientes, it would seem that there could scarcely be a limit to the production of cattle and sheep. With the most ordinary attention this would probably be the case, but the *estancieros*, as I have already said, seldom spend a dollar for the maintenance, not to say comfort, of their flocks and herds. The wide pampa is spread out before them. They have the range of the broad leagues which each *estanciero* possesses, and from the time they are dropped until death overtakes them they are left to shift for themselves.* During the spring and fall months, as we have seen, with an abundance of luxuriant grasses and succulent herbs on every side, they require but little oversight, but when the long droughts of summer come on and the second growth of grass does not appear, then, with streams and lakes dried up and no wells provided, immense losses are sustained. Cattle die by thousands and others stray away, sometimes to great distances, in search of food and water. In districts visited by drought to an unusual degree, sheep-farmers sometimes drive their sheep to other parts of the country, many leagues away, in order to save their flocks from starvation. And in the winter the situation is sometimes even worse. It is not unfrequently the case that the piercing southwest winds off the frozen Cordilleras will blow for weeks, bringing rain and sleet and snow, causing thousands upon thousands of animals to perish from exposure and hunger. Hurrying before one of these storms, I have known whole droves of cattle at last stopped in their mad career by some wire fence, and then dying piled up in masses upon each other. These losses, in the course of the year, amount to millions upon millions of both cattle and sheep.* And the natives call it *epedemia*, but epidemic has nothing whatever to do with it;† it is starvation and want of shelter. It is calculated that an acre of pasturage is required to properly feed one bullock or three sheep. But when you stock an *estancia* at the rate of three or four bullocks or six or seven sheep to the acre it must be an unusually good season for grass, with an unusually mild winter added in, if the animals manage to survive. It is this general tendency to overstocking which is the efficient cause of the dreadful mortality which yearly takes place among the cattle and sheep of the province of Buenos Ayres.

We are compelled to manage things better than this in the United States; and the result is that, no matter how protracted the droughts may be in summer or how severe the storms may be in winter, no such mortality among dumb cattle is ever known. We make provision for contingencies. We make use of pasturage ... We harvest and

30,000,000 acres."* Here in the Argentine Republic some hay (alfalfa) is grown, but it is for special purposes. It is sold in the cities or is baled and shipped to Rio Janeiro. It can be grown here nearly all the year round, and five or six crops may be taken during the warm months from the same field. Its growth is something marvelous, from 6 to 7 tons of excellent hay being cut from a single acre. But there is hardly an *estanciero* who has an acre of it in cultivation. Planting and harvesting hay is too much like work; and so his flocks and herds have to take their chances without it. The *estanciero* not only makes no provision for winter feeding, but he does not even exhibit the humanity or oversight of planting a belt of timber to the windward of his stock in order to break the force of occasional storms, and thus give a shelter to his animals.

THE VALUE OF THESE ARGENTINE PASTURES.

But in spite of all these short-comings of the cattle and sheep farmer, in spite of drought and storms, in spite of the fearful losses which these annually entail, the pasturage of the pampas, in the vast number of animals which it feeds and fattens, year in and year out, is an enduring source of wealth to the Argentine Republic. It is part and parcel of the assured riches of the country. It is the source and support of a greater pastoral industry than perhaps any other nation in the world possesses, and has been the means, in a little over thirty years, of bringing the Argentine Republic in the matter of sheep and cattle products to the first rank of producing countries. No one can gallop, as I have done, over this illimitable sea of succulent grass, everywhere so beautifully interspersed with an unending succession of scarlet and white verbenas, and blue nemophilas, and purple plantains, and floss-like panicles, and pearl-studded plumes, and black-spotted medic, and a thousand other flowers with their variegated sheets of color, all indiscriminately furnishing food for the millions of sheep and cattle and horses which browse upon them, without feeling that with such a wealth of vegetation offering itself spontaneously and without labor to the country, there need be no anxiety in regard to the future greatness of the Argentine Republic.

E. L. BAKER,
Consul.

CONSULATE OF THE UNITED STATES,
Buenos Ayres, March 26, 1887.

IRRIGATION IN AUSTRALIA.

REPORT OF CONSUL GRIFFIN.

The recent publication of a series of elaborate reports by the various colonial governments on the conservation of water, together with the arrival in Sydney of a number of American engineers and capitalists interested in the science of irrigation, has awakened very general interest in the subject throughout Australia. [illegible]
ever, as far as th[illegible]

consists principally in pumping the water out of the rivers onto the land. American pumping appliances are usually employed, and are admitted by every one to be superior to all others.

MOUNTAIN SYSTEM OF AUSTRALIA.

It should be remembered, however, by those contemplating the inauguration of an extensive system of irrigation in Australia, that the conditions of the country here are altogether different from those in the United States. In the first place, unlike America, there are no large rivers and lofty mountains in Australia. Although the mountains in the latter country extend over a vast area, their average elevation is only about 3,000 feet. The highest peak in Australia, Mount Kosciusko (7,308 feet), is about 700 feet below perpetual snow.

The mountain system of Australia is described as a very simple one. It can, perhaps, be very well understood by a brief reference to the various ranges in the colony of New South Wales. The system is usually distinguished by four main ranges, viz, (1) the interior ranges, (2) the great dividing chains (3) the coast ranges, (4) the isolated peaks and groups.

The interior ranges approach the western boundary of the colony and form the western water-shed of the Darling River. The greatest elevation of the interior ranges is 2,000 feet.

The great dividing chain contains the highest peaks in Australia and runs throughout the whole of the island continent. It is subdivided into seven main branches and separates the eastern and western water-sheds of the colony.

The coast ranges are on the east side of the great dividing chain and form the edge of the high table-land. The highest peak of the coast ranges is Mount Coolungera, 3,712 feet.

The isolated peaks and groups contain a considerable number of mountains, but all of them are below 3,000 feet in height.

THE RIVERS.

With the exception of a few small streams, all the rivers of the colony have their origin in the main dividing chain. The principal rivers of the eastern water-shed are the Hawkesbury, the Hunter, and Clarence. The Hawkesbury is 330 miles in length, the Hunter 300 miles, and the Clarence 240 miles. All the rivers of the eastern water-shed flow into the Pacific Ocean, and are estimated to drain an area of about 50,000 square miles. The principal rivers of the western water-shed are the Darling and its affluents, the Lachlan and its affluents, the Murrumbidgee and its affluents, and the Murray and its affluents. These rivers all eventually unite with the Murray, which empties into Lake Alexandria, near Adelaide, South Australia.

The Darling River is 1,160 miles in length. It drains, with its affluents, an area of 198,000 square miles. It is, however, a narrow stream

small steamers.

-storly and

untrustworthy for water supply. In most cases they are mere depressions connected with the rivers, and receive their water only in times of flood.

LAKES AND CANALS.

It is maintained in the report of the royal commission of New South Wales for the conservation of water that there are three lakes in the course of the river Darling, each of which has an area of 60 square miles, and that their capacity is shown by the fact that when rapid falls occur in the Darling the overflow from them keeps the river navigable for nearly a fortnight longer than it would be otherwise. This, the report says, is an important feature, as the outlets from the Darling are in their natural state, and that with few exceptions no attempt has been made either to increase or regulate the supply of water.

In the lakes east of the Darling, in the county of Livingstone, an almost permanent supply of water is kept through the construction of a dam across Tallawalka Creek. The cost of this, about $20,000, was incurred by the lessees of the land. It is said that this dam threw the water into a series of lakes extending north and south a distance of 80 miles.

The report of the royal commission states that the levels of the country between the Murray and Murrumbidgee show that it is well adapted for the construction of canals. The country between the Lachlan and Murrumbidgee is more irregular, but the vast area lying between the Lachlan and the Darling, which appears as a blank on the maps of the colony, possesses some well-defined features. For instance, the waters of the Darling and Lachlan are ordinarily separated for about 200 miles, but in time of flood they spread out to within a distance of 25 or 30 miles of each other.

SCHEMES FOR IRRIGATION WORKS.

Mr. James Harold, of this city, who has had much experience in farming by irrigation in the United States, and to whom I am principally indebted for the material of this report, says that there is a great clamor throughout the colony for a grand national scheme of irrigation by those who have no knowledge whatever of the cost of such an enterprise, or from what source the water is expected to be obtained. The truth is, Australia has no lofty snow-capped mountains from which to draw supplies, and therefore the rivers and streams very naturally become dry at a time when water is most needed for irrigation purposes. Indeed during dry seasons the rivers amount to but little more than a chain of water-holes. The land-owners on both sides of the Groydir River, an affluent of the Darling, are all clamoring for the right to dam the river without even a thought of the injury it may do to others. Mr. Harold says that they do not seem to know that the lucky individual at the source of the river would get all the water and that the less fortunate one lower down the stream would not get any. It has been proposed by graziers to place weirs or obstructions in the rivers for the purpose of turning their flood-waters into the numerous blind creeks and depressions which are found in various places upon the plains. Mr. Harold, however, objects

account of the recent heavy fall of rain, the blind creeks and depressions along the plains are filled with water, but such water cannot very well be impounded. If numerous weirs were placed in these streams the water would soon cease to flow.

EVAPORATION.

There are numerous depressions on the western plains, from 8 to 10 feet deep. Many of these are partly formed by their banks being raised above the level of the surrounding plains, and if they could be kept full of water much of it could doubtless be drawn off by gravitation for irrigation purposes. These lakes, or depressions, so long as they contain water may be of great advantage to the farmer, but in time of drought they are dried up, and therefore cannot be depended upon. Mr. Harold says that the evaporation from these lakes will amount to about 10 or 12 inches per month, and that the thought of obtaining a permanent supply of water from them is altogether out of the question. In the report of the royal commission it is stated that various opinions exist among farmers and graziers as to the extent of the evaporation of these lakes; that some contend that it is as much as a footper month for three or four months, while others say that it will not amount to more than 3 feet per year.

The assistant engineer for roads, who is charged with the construction of tanks, says that from a tank containing 18 feet of water evaporation would not exceed 4 or 5 feet per year. It was stated at the inquiry of the royal commission that in the Groydir district 2,000 sheep were watered for more than a year from a tank 10 feet deep, and there was water in it then, although none had run into it the whole time.

One witness stated that the average depth of a swamp into which water has flowed from the Bulla River was fully 4 feet, and that the water lasted fifteen months before it disappeared from evaporation and soakage.

The conditions upon which observations are made differ materially. For instance, the report of the royal commission states that the hot winds, which are of comparatively rare occurrence in the coast district, and which range in temperature at Sydney from 80° to 106° Fahrenheit, are more frequent on the western plains, where the thermometer sometimes records 130°, and for days stands at 110° to 116°. It would be a mistake, however, to attribute this condition of wind to long periods, for the wind records show that as compared with the coast districts the country beyond the main dividing range has a comparatively tranquil atmosphere.

The subjoined table was furnished the commission by Mr. Russell, the government astronomer:

Result of observations with the tank evaporation.

Month.	Bourke.	Hay.	Hillston.
		Inches.	*Inches.*

A series of experiments have recently been made by Mr. Russell for the purpose of testing the evaporation power of some of the larger lakes of the colony. In 1885 he placed a self-registering evaporation gauge in Lake George. This lake is about 19 miles in length and 6 in width. It is situated on the eastern side of the great dividing chain at an elevation of 2,200 feet above the level of the sea. Its waters, however, have no outlet, and consequently are strongly impregnated with salts. Lake George has never been known to overflow, and in dry weather it has failed entirely. The following table shows the results of Mr. Russell's experiments:

The water-gauge in Lake George.

Date.	Evaporation.		Rainfall.	Total loss by evaporation.	
	Reading of gauge.	Loss or gain.		Amount.	Months.
1885.	*Inches.*	*Inches.*	*Inches.*	*Inches.*	
March 1	2.8	.....	.....	.....	
April 1	6.8	−4.0	0.44	4.44	March.
May 1	7.7	−0.9	1.54	2.44	April.
June 1	8.8	−1.1	1.92	5.03	May (very windy).
July 1	6.7	+2.1	3.42	1.32	June.
August 1	5.0	+1.7	1.82	0.12	July.
September 1	5.4	−0.4	1.06	1.46	August.
October 1	7.9	−2.5	1.15	3.65	September.
October 31	10.7	−2.8	1.74	4.54	October.
Total	.....	−7.9	13.09	20.99	

In a note accompanying this table Mr. Russell states that he added only the rain which fell on the lake and not that which flowed into it, taking the mean of two rain-gauges, one at each end. He says further that during the last 14 years the lake has lost by evaporation 12 feet.

ARTESIAN AND OTHER WELLS.

The royal commission in reporting upon wells is unable to express an opinion as to the theory of an underground flow of water in Australia to the ocean. They mention that water has been found at Tarkania in South Australia, 150 miles from the western boundary of New South Wales, in latitude 29°, at a depth of 1,220 feet, or 1,040 feet below sea-level. The water rose 20 feet above the surface. Water was struck at Hergott Springs, also in the same colony, at 339 feet. The flow at Tarkania is only about 40 gallons per day, but the well at Hergott Springs yields 5,000 gallons per day. The diameter of the bore at Tarkania is 3 inches, and that at Hergott Springs is 6 inches.

A supply of fresh water was obtained at Bowrke, New South Wales, at a depth of 480 feet, and at another station near there at 550 feet.

The most important discovery of water in Australia, according to a recent report of Mr. H. I. Slee, superintendent of diamond drills for this colony, occurred during the present year at Wanaaring, Bowrke district, at a depth of 942 feet from the surface. The water was tapped on the 18th of February at 3 p. m., when it rose in tubes and flowed a steady stream, and has increased steadily in vol[illegible]
Slee is of opinion that it i[illegible]

results from the present boring operations on the road from Bourke to Wanaaring. If artesian water was tapped all along this road, which I believed would be the case, these boring operations would be successfully extended in the cretaceous basin to Wanaaring, Milparinka, and Mount Browne. In some parts the bores may have to be put down from 700 to 800 feet; in other parts from 400 to 600 feet might be probable depths. The greatest drawback in that remote part of New South Wales is the great scarcity of water, and if this was once overcome by artesian wells, all the stock and wool now finding its way from Cooper's Creek, Thargomindah, Mount Browne, and Mount Poole districts would be directed toward the Bourke Railway station and Sydney, and goods from the latter place would be forwarded in exchange. Great credit is due to Foreman Carmichael, who has rendered me every possible assistance, and who has had many hardships to undergo while boring operations were going on. From personal inspection, and from my knowledge of the country, I expect further favorable results, both of the 18 and 93 mile bores.

To this report the under secretary for mines, Mr. Harrie Wood, attached the following encouraging minute:

This is the deepest bore ever sunk in New South Wales by means of a water-auger, and the greatest credit is due to the superintendent and foreman for the manner in which they have conducted these works in the face of great difficulties.

The people in many districts have given up the practice of sinking for water from the fact that when found it is of a brackish nature, and depend principally upon tanks for the conservation of water. Of course the farmers have to wait for the wet season before their tanks can be filled. The tanks used are often too wide and shallow. In open tanks, from which the sheep take water freely, the loss is enormous through weak animals getting bogged. Tanks are less expensive than wells, but when the right kind of water cannot be found by ordinary sinking, the artesian well should be the farmers' main dependence. In some districts it has been noticed that in almost every case where water has been struck, salt water is invariably found at higher levels and not unfrequently near the surface. In these circumstances the presence of salt water should not discourage those from undertaking deeper explorations.

The colonial geologist accounts for the prevalence of salt water in the alluvial districts from the fact of its fresh-water origin. The débris washed from the ranges has been deposited quickly and the decompositions from the mineral constituents arising from the moisture has converted the fresh water into salt. Sulphate of alumina, lime, and magnesia have been formed, and salts chemically produced. In the marine formations the soluble parts of the mineral have been washed out by the long continued action of the sea water. When the water flows underground it is fresh, but whenever it is stationary, as it may be in clay beds a few yards from the current, it will become salt. The saline nature of the soil has given rise to well-marked peculiarities in the herbage, such as the salt bush.

Some good work in artesian boring has been done by private enterprise, but the great part of the work is left to the government. Mr. Harold, in reply to some interrogatories of mine on the subject of well-boring, says that the Australians need more than anything else a few good sets of the ordinary Pennsylvania oil-boring apparatus or appli-

where dikes of mineral-bearing rock occur. The most remarkable artesian belt in Australia occurs in the Liverpool Plains, in the northern part of New South Wales, but very little has been done to develop it. In the early history of the country water was very scarce in that district. All the rivers and creeks in the summer were turned into sand tracks. Wells were sunk there, and the water has continued to flow from them ever since. The greater part of the district is what may be called good boring country, and little trouble need be apprehended from the swelling of the surfaces of the bores, as little soapstone is met with.

THE RAINFALL.

So much is said about the drought of Australia that very few persons are aware that the average rainfall in all the colonies will compare favorably with that of other countries. In New South Wales, a territory of 310,000 square miles, the average rainfall is 24 inches. At Sydney it is about 50 inches, at Eden it is 70 inches, but in the flat country it is only about 10 inches. The average rainfall in Queensland is about the same as that of New South Wales. The former colony, however, is more subject to tropical rains than the latter. The rainfall, therefore, in Queensland rises in some districts, as for instance Johnstone River, to 123 inches; in other places the average is as low as 8 inches.

At Adelaide, South Australia, where there are no high coast ranges to arrest the drift of the clouds, the rainfall is as low as 20 inches. At Port Augusta it falls to 8 inches. At Perth, Western Australia, the average is 31 inches, but at Canaroon, in the same colony, it does not average more than 6 inches. At Eucla it is 10 inches. The rainfall in Victoria varies from 63 inches at Cape Schanck to 12 inches at Wycheproof. At Melbourne it is about 25 inches.

The trouble, however, in Australia is that whenever there is a diminished rainfall the effects are much more disastrous than in other places on account of the great heat of the sun and the absence of more general cultivation. A diminished rainfall of 50 per cent. has at times desolated vast tracts of country. The report of the New South Wales royal commission, however, states that while one part of the country suffers from a diminished rainfall other parts have an average supply and others again may be favored with an abundant fall. In the basin of the Darling, excluding the hilly portion, the rainfall is 12.81 inches. In the plains between the Lachlan and the Murrumbidgee it is 16.33 inches, and in the corresponding district between the Murrumbidgee and the Murray it is 14.56. These rainfalls would be suffic ent for ordinary crops of cereals if they came at proper periods, but the report of the commission admits that they do not. It says that as a rule in these districts when rain is most needed it comes in such small quantities as to be of little or no benefit to vegetation.

STORAGE OF WATER.

One of the most difficult questions with which Australians have to deal in connection with the subject of irrigation is the best [illegible] the storage of water. There is [illegible] a tempor[illegible]

hours. The report of the New South Wales royal commission recommends the establishment of large reservoirs at the heads of the principal rivers and creeks and the placing of movable weirs across others in time of flood. They also recommend the establishment of sluice-gates to prevent the return of water to the main stream. Mr. Harold, in commenting upon the report of the commission, says that whatever is done for irrigation should be done by huge artificial water conservations in the mountains and by artesian and other wells. He says occasionally, in times of floods, water might be preserved, but it could not be depended upon. In conclusion he says that we should bear in mind that very fair crops can be grown over a large area in New South Wales without the aid of irrigation. He cites in support of this statement the fact that during the drought of 1886, one of the severest ever known, the average yield of wheat in these districts was 10½ bushels per acre. Mr. Harold says, however, that it is useless to think of irrigation for pastoral purposes in Australia, except upon a limited scale, as the cost would be too great. "It might answer," he says, "where land can be had at almost nothing, but where population increases the land will become more valuable, and it will be required to grow food for the people instead of grass for sheep."

RIPARIAN RIGHTS.

The New South Wales commission is very decided in the opinion that the riparian rights which exist under the common law of England are not at all applicable to the conditions of Australia, and that an attempt to enforce them would be a serious disturbance to the progress of the country in so far as that progress depends on the conservation of water. In the colony of Victoria no such rights can accrue, from the fact that the frontages to all rivers are reserved from sale. The conditions in New South Wales and other colonies are altogether different. Extensive alienations have taken place, which involve the legal rights of ownership to the middle of the beds of streams.

A memorandum as to what riparian rights really mean under the common law was prepared for the information of the commission by Mr. Alexander Oliver. In this memorandum Mr. Oliver quotes largely from Mr. Justice Story's opinion in the case of Tyler *v.* Wilkinson (4 Mason, U. S. Reports, 397), where it is laid down—

That *prima facie* (*i. e.*, the law presumes) every proprietor upon each bank of a river is entitled to the land covered with water in front of the bank to the middle, the bed of the stream, or, as it is commonly expressed, *ad medium filium aquæ*. In virtue of his ownership he has a right to the use of the water flowing over it in its natural current without diminution or obstruction. Mr. Justice Story says that the consequence of this principle is that no proprietor has the right to use the water to the prejudice of another, and that it is wholly immaterial whether the party be a proprietor above or below in the course of the river, the right being common to all the proprietors; therefore no one has the right to diminish the quantity which will, according to the natural current, flow to the proprietor below or to throw it back upon the proprietor above.

Mr. Oliver's memorandum the commission states

of a flowing stream or who make such a diversion of the water as would inundate his land.

The commission states:

> The position with which we have to deal is not so much with flowing water as with dry channels through which water flows only at long and irregular intervals. It is required that these water-courses should be made to hold water—to be in effect converted into inundation canals; but this would not be possible under the present state of the law, by which any litigious person could, if so minded, interpose a bar to the erection of weirs or other works.

The commission further states that there should be no difficulty in superseding the presumption of the English common law by a clear enactment of state ownership, for the common law only gives a riparian owner power to use so much of the water of a river as he requires for his own consumption and that of his own stock, while the object and effect of state ownership would be to increase the supply of water, which now often wholly fails, and to make it permanent.

GOVERNMENT AID TO IRRIGATION.

Several of the Australian governments have entered into agreements for the transfer of extensive tracts of land to various irrigation companies.

The South Australian government has recently perfected arrangements with the Messrs. Chaffey Brothers, who have considerable experience with irrigation in California, by which the firm may acquire 250,000 acres of land in that colony. The firm is to have 30,000 acres at once upon the condition that it will during the first five years spend the sum of $175,000, during the second five years $700,000, during the third five years $375,000, and during the fourth five years $250,000, or a total of $1,500,000. On spending $5 per acre on the land, inclusive of the first 30,000 acres, the irrigationists may acquire the fee-simple up to 50,000 acres. This will leave 200,000 acres. When the Messrs. Chaffey have expended $5 per acre upon this area they may purchase it for another $5 per acre, so that altogether it will cost them $3,000,000 to gain the fee-simple of the whole block of 250,000 acres. It is further agreed that all the machinery and pipes shall be manufactured in the colony, unless the government should determine to send abroad for them.

The government of Victoria has also concluded an agreement with the same firm, by which the Messrs. Chaffey Brothers are to have 50,000 acres in what is known as the Malley country, on the Lower Murray frontage, 11 miles east from the junction of the Darling, with the right of purchasing 200,000 acres hereafter. The fee-simple of the land was valued by the surveyor-general at 60 cents to $1.21 per acre, but the highest rental ever offered for it was 2 cents for every 14 acres.

The Messrs. Chaffey undertake in this agreement to expend the sum of $1,500,000 within twenty years upon 47,000 acres in constructing irrigation works and for building an agricultural college. The land when cleared for settlement is to be cut up in small blocks of not more than 80 acres, if planted and prepared for fruit-growing, and not more than 160 acres if for other products, each to be [illegible] person to be allowed to [illegible] family.

be spent in improvement upon 235,000 acres of Malley land, and the sum of $2,100,000 paid to the government.

This agreement met with vehement opposition in the colonial parliament, but after a series of protracted debates it was finally agreed that the Messrs. Chaffey Brothers should enter upon the occupation of their land.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, New South Wales, March 8, 1887.

PETROLEUM FUEL.

REPORT OF CONSULAR AGENT CHAMBERS, OF BATOUM.

In January there appeared in the Baku News (*Bakinskia Izvaistia*) a communication from Mr. F. V. Urquhart, a gentleman intimately connected with the Russian railways contiguous to the Volga, in which he gives the most complete, comprehensive, and accurate comparison of the results from coal and petroleum residuum fuel for locomotives that I have ever seen. It is not the result of a single experience, but of a year's use of each article, with the figures, in detail, upon which he bases his conclusions. That Mr. Urquhart is probably the most competent authority upon the subject in Russia (and, of course, the world, as nowhere else have the merits of petroleum fuel been so thoroughly tested) cannot be doubted, and that his system for burning petroleum residuum is the best, is, I think, conclusively proven by its almost universal adoption by the railways using that kind of fuel. The following is an abbreviated translation of Mr. Urquhart's communication, with the statistics given by him:

I deem it my duty to say that, thanks to your communications in 1883, regarding the great success in the use of petroleum residuum fuel in the locomotives of the Griazi-Tsaritzin Railway and the railways contiguous to the Volga River and the Caspian Sea, ordered special technical agents to familiarize themselves with the system of burning residuum, which, having overcome all technical difficulties (which up to that time had been the great obstacle in the way of the general use of this new fuel for steam engines), it can be said, had laid the foundation for its systematic use. After the Griazi-Tsaritzin Railway, the Tamboff-Saratoff Railway was the first to use my system of burning residuum, and the others soon followed, including the Transcaucasian and Trans-Caspian, by first adapting several locomotives to its use, in order to test it in comparison with other methods.

Four years have passed since the Griazi-Tsaritzin Railway began to use petroleum residuum fuel, and I take the liberty to communicate some of the results of my system as used upon the locomotives of that railway, which is the only one in the world using for all its locomotives (143) and stationary boilers (50) petroleum residuum fuel only; in fact, I can say without exaggeration that for making steam and in the shops of the company no other fuel is used.

The first conclusively successful trip of a locomotive using petroleum residuum fuel was made in January, 1883, and was closely followed in the spring [illegible] of the new fuel. By October 1, 1884, [illegible] the result of

Expenditure of coal in 1882 and petroleum residuum in 1885, inclusive of kindling-wood, on eight-wheel engines at the head of the train, and also those of the reserve one and two engines, for one engine-verst.

WITH COAL IN 1882.

Month.	Average number in the train.	Aggregate distance run by locomotives.	Aggregate distance of unproductive run of locomotives.	Aggregate distance run by freight cars.	Average consumption of fuel and its cost.	
					Coal.	Cost.
					Pounds.	*Copecks.*
January	33.82	62,286	10,562	1,952,784	70.39	37.847
February	34.21	56,477	8,703	1,633,370	61.90	32.460
March	33.41	31,495	2,950	953,862	62.28	33.311
April	38.14	36,641	5,022	1,282,273	52.00	27.189
May	41.24	49,992	7,175	1,766,146	50.30	26.576
June	40.53	56,592	7,402	1,993,718	52.02	27.527
July	43.64	44,871	8,751	1,576,472	51.10	27.057
August	39.99	58,448	9,092	1,973,958	50.77	25.658
September	39.54	85,198	14,024	2,814,285	54.32	27.568
October	35.13	107,302	17,935	3,139,478	54.89	28.298
November	36.56	106,284	19,077	3,188,796	65.90	34.558
December	34.00	79,583	10,809	2,135,762	71.10	36.982
Total and average for year	37.5	703,586	127,502	24,350,904	58.00	30.67

WITH PETROLEUM RESIDUUM IN 1885.

Month.	Average number in the train.	Aggregate distance run by locomotives.	Aggregate distance of unproductive runs of locomotives.	Aggregate distance run by freight cars.	Average consumption of fuel and its cost.	
					Residuum.	Cost.
		Versts.	*Versts.*	*Versts.*	*Pounds.*	*Copecks.*
January	37.72	126,148	24,218	3,844,993	34.40	17.21
February	37.15	83,292	15,761	2,509,522	35.60	13.85
March	30.95	58,435	4,897	2,119,400	37.60	22.61
April	41.03	91,217	14,777	3,136,568	30.40	17.82
May	40.81	132,436	20,345	4,574,666	29.20	16.22
June	41.68	113,386	16,635	4,033,165	29.80	14.04
July	38.80	96,382	13,967	3,198,381	27.20	14.01
August	40.32	112,025	16,283	3,861,288	29.56	15.43
September	39.76	124,306	19,971	4,148,774	29.36	14.96
October	37.61	152,720	23,331	4,866,815	34.00	17.37
November	36.24	124,203	24,788	3,602,958	30.59	19.19
December	34.85	95,728	14,302	2,837,310	38.60	22.06
Totals and average for year	38.08	1,310,276	209,274	42,733,840	32.68	17.44

Average consumption of coal per verst in 1882		58.00
Average consumption of petroleum per verst in 1885	pounds	32.64
Saved on petroleum against coal in weight	do	43.68
Unproductive run of locomotives:		
With coal in 1882, per cent. of aggregate	per cent	15.85
With petroleum in 1886, per cent. of aggregate		15.97
Average cost per verst:		
With coal		30.67
With petroleum		17.44
Saved on petroleum against coal in cost	copecks	43.13
	do	
	per cent	

100 pounds coal =56.32 poods petroleum; 100 rubles coal =56.87 rubles petroleum.

Expenditure of coal in 1882 and petroleum residuum in 1885, inclusive of kindling-wood, on six-wheel engines at the lead of the train, and also those of the reserve, one and two engine for one engine verst.

WITH COAL IN 1882.

Month.	Aggregate number in the train.	Aggregate distance run by locomotives.	Aggregate distance of unproductive run of locomotives.	Aggregate distance run by freight cars.	Average consumption of fuel and its cost.	
					Coal.	Cost.
		Versts.	*Versts.*	*Versts.*	*Pounds.*	*Copecks.*
January	21 32	118,015	54,498	1,354,179	44.59	23.977
February	27.47	65,095	34,703	844,875	39.28	20.250
March	26.52	41,858	23,133	496,606	37.56	19.641
April	28.59	86,899	33,933	1,514,509	38.35	19.939
May	31.90	167,694	61,802	3,380,503	40.30	20.728
June	30.74	222,806	73,482	4,591,018	40.93	21.687
July	28.39	219,053	78,169	4,000,758	34.68	18.297
August	27.04	230,240	79,484	4,077,641	35.53	17.738
September	28.93	215,687	75,585	4,062,201	39.52	19.767
October	23.30	246,520	81,203	4,678,399	44.37	22.718
November	21.61	240,829	65,823	3,783,391	45.50	23.468
December	20.04	169,108	54,920	2,289,703	48.70	24.93
Total and average for year	26.73	2,053,344	716,741	35,073,788	40.78	21.11

WITH PETROLEUM RESIDUUM IN 1885.

Month.	Aggregate number in the train.	Aggregate distance run by locomotives.	Aggregate distance of unproductive run of locomotives.	Aggregate distance run by freight cars.	Average consumption of fuel and cost.	
					Residuum.	Cost.
		Versts.	*Versts.*	*Versts.*	*Pounds.*	*Copecks.*
January	22.14	172,236	69,461	2,276,026	24.52	12.24
February	22.01	135,231	56,582	1,731,609	24.28	12.40
March	22.58	134,163	50,862	1,655,267	20.64	12.36
April	25.33	213,552	73,385	3,551,038	22.60	13.24
May	28.49	271,301	99,525	4,894,425	21.28	11.77
June	28.35	218,204	83,479	3,820,671	21.32	10.97
July	24.77	198,101	72,401	3,114,183	19.64	9.51
August	28.27	193,906	70,403	3,492,526	20.48	10.70
September	31.89	197,355	69.515	4,077,052	22.84	11.67
October	28.04	189,327	57,717	3,693,639	25.32	13.05
November	21.41	180,677	54,689	3,697,697	25.46	13.37
December	22.15	139,309	51,540	1,944,033	27.16	14.73
Total and average for year	25.44	2,243,362	809,559	36,948,766	22.96	12.17

Average consumption of coal per verst in 1882	pounds..	40.78
Average consumption of petroleum per verst in 1885	do....	22.96
Saved on petroleum against coal in weight	per cent..	43.70
Unproductive run of locomotives:		
With coal in 1882, per cent. of aggregate		35.25
With petroleum in 1885, per cent. of aggregate		36.08
Average cost per verst:		
With coal	copecks..	21
With petroleum	do....	12.17
Saved on petroleum against coal in cost	per cent..	42.35
Average yearly cost per pood:		
Of coal	copecks..	21.17
Of petroleum	do....	21.19

56 2 poods petroleum: 100 rubles coal=57.65 rubles petroleum.

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Cost of moving 1,000 car axles per verst, 1881, 5.91 rubles; 1882, 5.51 rubles; 1883, 5.37 rubles; 1884, 3.70 rubles; 1885, 3.15 rubles. With coal in 1882, 5.91 rubles, and with petroleum residuum in 1885, 3.15 rubles, or a saving of 46.7 per cent.

In conclusion, I take the liberty to say, that owing to the circulation given to the first information regarding my improved system of petroleum burning, technical agents from North America and Italy were sent to Borisoglebsk to study it, and at present it is in use in America, Burmah, India, Italy, and several other countries, and even for torpedoes.*

I think Mr. Urquhart proves intelligently and conclusively the great advantage of petroleum fuel over coal in the localities where coal is expensive and a sufficient and cheap supply of residuum is obtainable, but the price he quotes for coal (21.17 copecks, per pood, not less than $6.70 per ton at that time) is exceedingly high, and cannot, of course, be taken to compare the actual values of the two articles outside of Russia. He also shows, equally as conclusively, the difference in the two articles of fuel (coal, 100; residuum, 56.3) to be much smaller than has heretofore been shown by the enthusiasts for the "fuel of the future."

That there is a doubt in the minds of those most competent to judge even in Russia as to the permanency of the present advantage of petroleum fuel over coal, even for use in the countries nearest the base of petroleum supply, will be seen by an extract from a speech delivered May 19 (31), before the Baku Technological Society, by Professor Mendelaef, a leading Russian scientist sent by the Russian Government to Baku last year to study the petroleum industry, and who is unquestionably an enthusiast regarding that industry. This gentleman, in the course of the speech alluded to, said:

The sale for petroleum residuum is definite; it will have the same sale in the future; but the country cannot base its manufactures on petroleum fuel, which is unknown and unguaranteed, while coal is known and guaranteed. At the present moment residuum is overthrowing coal, because of a lack of adequate transportation facilities from the Don coal-fields to the Volga country, from whence it would thrust itself to the manufacturing centers—the governments of Vladimir and Moscow. However, in the order of the decision of the question of constructing the Eastern Don Railway, the coal will prevail. In the interest of the fuel supply of the Empire it would be safer to increase it with coal. Killing the coal on the Volga now, petroleum products will themselves be killed, and it is to be hoped that to such a demand for petroleum a limit will be put.

These facts and opinions, coming as they do from the two most eminently competent Russian authorities upon the subject, cannot be attributed to "American prejudice," as are generally the few plain truths told regarding the Russian petroleum industry which do not show that industry up in the rosiest hues.

The present limited transportation facilities from Baku to the Black Sea make thoughts of petroleum displacing coal for fuel, even upon steamers in the Black Sea trade, impossible. To-day English coal can be bought at Batoum, duty paid (the duty is about $1.44 per ton) for $6.50 per ton, while a supply of residuum can only be had by shipping it from Baku in barrels, at a cost of nearly twice the price of coal for freight only. Residuum, to displace coal in the Mediterranean trade, would have to be delivered at Constantinople and Malta, because if it were given away at Batoum it would hardly be sufficient inducement for vessels to spend the six or seven days necessary to run from Constantinople to Batoum for fuel. Taking the present and minimum cost of

* Owing to the fluctuations in the value of Russian

the article at Baku, 70 cents per ton free on board, the rate of freight in bulk from Baku to Batoum, with the expense of pumping into tanks and vessels at $4.95 per ton (which is also the minimum, admitting the railway capacity to be unlimited, which it never can be), and the sea freight the same as is charged by steamers to Odessa (a shorter run), $2.80 per ton, the actual cost of residuum at Constantinople will be $8.45 per ton, to which not less than 10 per cent. must be added for profit and expenses there, and we have $9.30 as a fair selling price there, against English coal at $5 and $5.25 per ton. As Malta is five or six days farther than Constantinople, and English coal worth about $4 or $4.25 per ton there, delivering residuum there is wholly out of the question.

The great and only inducement held out to ship-owners to abandon the use of a known and tried fuel, the supply of which is assured, and to alter their steamers to burn a new fuel, the supply of which is exceedingly uncertain, and the expense of which, even under the most favorable circumstances that can at present exist, must be greater than coal, is that a pipe-line from Baku to Batoum will soon be constructed, refineries erected on the Black Sea coast, and residuum will be given away in sufficient quantities to supply the world.

PROPOSED PIPE-LINE.

In a former communication I alluded to the much talked of concession offered by the Russian Government for the construction of a pipe-line from Baku to the Black Sea. To show what is conceded it is unnecessary to quote the conditions of this concession entire, but simply to give the following extracts from them: First. All pipe, machinery, and material for the line must be manufactured in Russia and from Russian material. Second. The Government will exercise the most strict control of the line, to see that no one having an interest in it has any other direct or indirect interest in producing, refining, or trading in petroleum products, which is strictly forbidden. Third. The minimum charge for transportation from the wells to the Black Sea is about 39 cents per barrel of 42 gallons, a distance of 560 miles (against 45 cents per barrel charges in America for 300 miles); and last, the whole construction of the line is to become the property of the Government after seventy-five years, which means that none of the material can from time to time be removed for use elsewhere. There is also a small Government tax to be paid by the company owning the line, equal to the present value of the crude oil at the wells.

Is it at all strange that capitalists of a sufficiently philanthropic turn of mind (excepting, of course, newspaper and prospectus writers) to accept this remarkable concession (?) seem very slow about coming forward?

Recently some of the enthusiastic advocates of a Baku-Batoum pipe-line, petroleum fuel, &c., have called attention to the railway now being constructed from what they term the "Black Sea petroleum field" to [illegible] as affording a future outlet for petroleum fuel to the Black [illegible] the fact that a pipe-line from the [illegible]istence for

At present there are not more than half a dozen small steamers in the Black Sea using petroleum fuel; they run between Russian Black Sea ports, and have been getting their residuum at Novorossisk at a cost of about $5.75 per ton (it cost the sellers fully ten times that amount). A small sailing vessel fitted to carry residuum in bulk from Novorossisk to Odessa took one cargo to Odessa, which from the fact that this vessel is now loading here, and will be more than thirty days getting a cargo of 300 tons, at a cost of probably not less than $12 per ton here (sales were made of small quantities at that price, but not for fuel, last month), it is fair to presume that the supply at Novorossisk is either exhausted or that the product was not satisfactory. Another significant fact is that the Russian Steamship Company, the most energetic, enterprising, and best managed corporation of Russia, owning the greatest number of steamers in the Black Sea trade, has never seen fit to change from coal to petroleum fuel.

These are indisputable facts, and the inference is, I believe, only reasonable that if it is dependent upon the supply from Russia, petroleum is indeed a "fuel of the very distant future."

JAMES C. CHAMBERS,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Batoum, March 1, 1887.

TRADE OF GERMANY IN THE YEAR 1886.

REPORT OF CONSUL WAMER.

According to estimates made from the official figures of the quantities of the imports and exports, the value of the trade of Germany, including precious metals, in the year 1886, was as follows:

[1 ton=1,000 kilometers.]

Years.	Imports.		Exports.	
	Quantity.	Value.	Quantity.	Value.
	Tons.		*Tons.*	
1886	16, 940, 488	$703, 510, 864	18, 924, 284	$740, 638, 864
1885	17, 867, 330	711, 612, 622	18, 840, 023	693, 831, 166
	−926, 842	−8, 101, 758	+84, 260	+46, 807, 698

The imports, as compared with those of the year 1885, show a decrease, while the exports have increased. In the year 1885 the balance of trade against Germany was to the extent of $17,781,000; in 1886 the balance in her favor was $37,128,000. In the first half of the year 1886 the crisis continued to make itself felt, which did not [illegible] signs of improvement until [illegible]

has declined from $73,542,000 to $51,170,000. This decline in the import of grain lies in the falling off in the consumption. The export of manufactured articles has in some respect considerably increased. For instance, the export of silk goods has risen from $31,773,000 to $38,913,000, woolen goods from $37,842,000 to $41,050,000, and hosiery from $20,944,000 to $24,752,000. The export of clothes, ready-made linen, and millinery goods amounted to $20,658,000 in 1885, and $23,216,900 in 1886; laces, embroideries, and silk laces rose from $9,146,340 to $14,113,400, and hardware and jewelry from $19,232,750 to $21,950,740 for the same periods. The import of machinery, instruments, and apparatus has decreased by $2,284,000, and the export by $654,500. Of cattle and other living animals the import has decreased by $4,274,000, and the export by $3,689,000. The export of sugar, sirups, and molasses has risen from 623,903 tons to 635,321 tons. Raw fat and grease materials show a decrease of import to the extent of $1,438,520, and of export to the extent of $150,000. The import of manufactured goods has declined by $2,246,720, and the export by $435,540. The value of the imports of pottery, earthenware, porcelain, and glassware exceeds the value of the exports.

These figures show a marked turn in favor of the trade of Germany for the year 1886, and the crisis of 1885, which threatened to continue in 1886, was thus overcome.

WM. D. WAMER,
Consul.

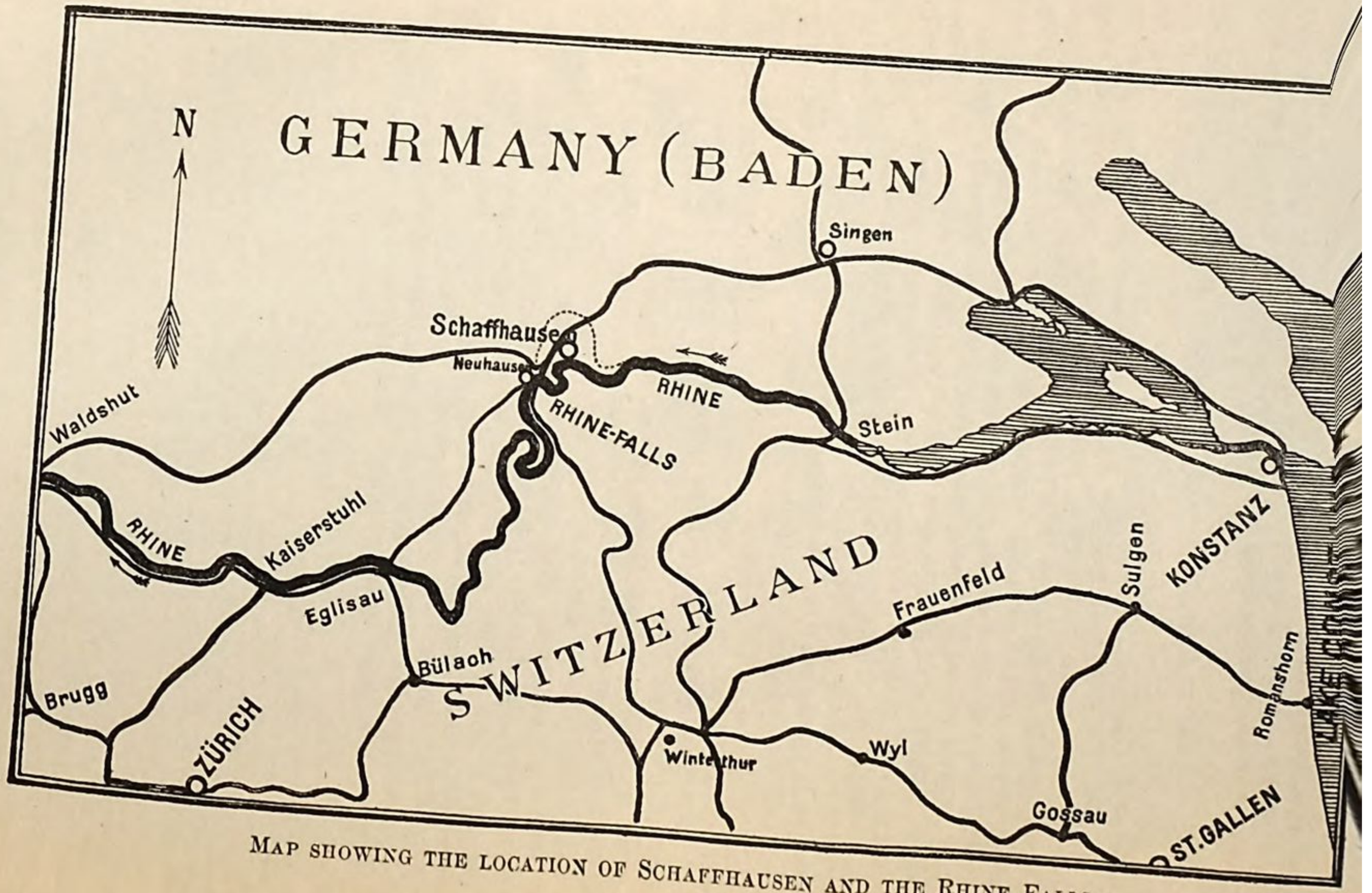
UNITED STATES CONSULATE,
Cologne, April 21, 1887.

THE PROJECT FOR UTILIZING THE RHINE FALL.

REPORT OF CONSUL CATLIN.

In this practical age of inventions and progress, where the telegraph pole and the factory chimney rear themselves against the horizons of every landscape; where mountain fastnesses and remote valleys, long consecrated to the charms of nature alone, now resound with the whistle of steam and the stroke of the hammer; and where the iconoclastic hand of enterprise, divested of all sentiment, is reaching out into every nook and corner of the universe to discover and develop new commercial opportunities and resources—in such an age it is not surprising that an application backed by large capital has recently been made for a concession to utilize for the manufacture of aluminium the water-power of the largest cataract in Europe, the falls of the Rhine at Schaffhausen, in this consular district.

Some 25 miles below the point where it issues from the Lake of Constance the Rhine, with a width of 350 and an average depth of about [illegible] varying in height from 45 feet on [illegible] rapids the



MAP SHOWING THE LOCATION OF SCHAFFHAUSEN AND THE RHINE FALLS.

the mountains, and the rise in all the tributary streams and brooks, the Rhine reaches its highest point. The following table shows the Rhine's average depth and volume at Schaffhausen, in each month of the year, based on observations covering the period from 1852 to 1886:

Month.	Depth.	Volume per second.	Month.	Depth.	Volume per second.
	Meters.	*Cubic meters.*		*Meters.*	*Cubic meters.*
January	6.817	137	August	7.623	403
February	6.623	118	September	7.396	325
March	6.745	122	October	7.310	293
April	6.862	146	November	7.074	210
May	7.091	217	December	6.948	170
June	7.581	388			
July	7.892	502	Average	7.172	252

As showing how systematically and thoroughly observations of a similar nature, all of them tending to determine the Rhine's volume at Schaffhausen, have been carried on for years past, the following instances may be cited: Oberbaurath Honfell, in his publication entitled "*Der Bodensee* (Lake Constance) *und die Tieferlegung seiner Hochwasserstande*," states that between 1817 and 1876, a period of sixty years, the Lake of Constance and consequently the Rhine at Schaffhausen reached their lowest water stand, viz, 6.29 meters, in the year 1858. During the period of ten years following that above cited, *i. e.*, from 1876 to 1886, the lowest depth was 6.54 meters, and that occurred in 1882. Hence during the entire seventy years from 1817 to 1886, the lowest point reached was that of 1858, and that measurement may be and therefore is taken as the minimal one in determining the volume of water.

There is, however, a noticeable variation in the results obtained from calculations based on that measurement. One made by Herr Zuppinger, of Escher, Wyss & Co., of Zurich, on January 26, 1858, gave 54 cubic meters per second; another by Herr Ziegler, of Winterthur, March 24, 1858, 87.4 cubic meters per second; and a third by Messrs. C. Stauber & Co., of Zurich, during the same year, 81 cubic meters per second. Upon which of these the most dependence may be placed is uncertain, but it will not be much out of the way to say that the lowest volume of water recorded during seventy years past as passing over the Rhine Fall is not less than 70 cubic meters per second. The minimum for the last twenty years has been 164.5 cubic meters per second; the maximum for the last thirty-four years, as we have seen by the above table, has been 502 cubic meters per second.

OBJECTIONS TO THE PROPOSED WORKS.

It is upon these results that the application for the use of the water-power is based. The applicants, Messrs. J. G. Nehers, Sons & Co., iron workers at Schaffhausen, ask the privilege of constructing [illegible] the Laufen mill to the [illegible]

tion the necessary maps, plans, and drawings. They further announce that a stock company, with a capital of 12,000,000 francs, is prepared to conduct the enterprise, and they offer all reasonable guarantees against any marring or defacement of the natural beauties of the falls.

But now come the hotel kings, men of influence in Switzerland, and many others like them dependent upon the so-called "*Fremden Industrie*," or tourist business, and enter a vigorous protest against the granting of this or any other similar concession. From time immemorial, say they, the fame and beauty of this cataract and its surroundings have attracted to this section of Switzerland annually increasing throngs of strangers from all parts of Europe and America, who bring with them in the aggregate large sums of money, and impart an impetus to every branch of trade and travel.

Mar the charms of this great waterfall, diminish or destroy its attractiveness and what, argue they, will be the result? An immediate falling off in the tide of summer travel hitherward, a consequent shrinkage in the value of the palatial and costly hotels of Northeastern Switzerland, and a blight upon all the thousand and one branches of business which, lying dormant all winter, blossom and thrive during the tourist season from May to October. And not only in Schaffhausen, but also in Zurich, Lucerne, Ragatz, and all the pleasant summer resorts along the beautiful Lake of Constance would such a shrinkage in tourist travel operate disastrously. Zurich, which is spending millions in beautifying her lake front, and rendering herself still more attractive to strangers, enters through her hotel keepers' association an especially vigorous protest against the project, and her cantonal government, to which of right the application is referred, promptly vetoes it.

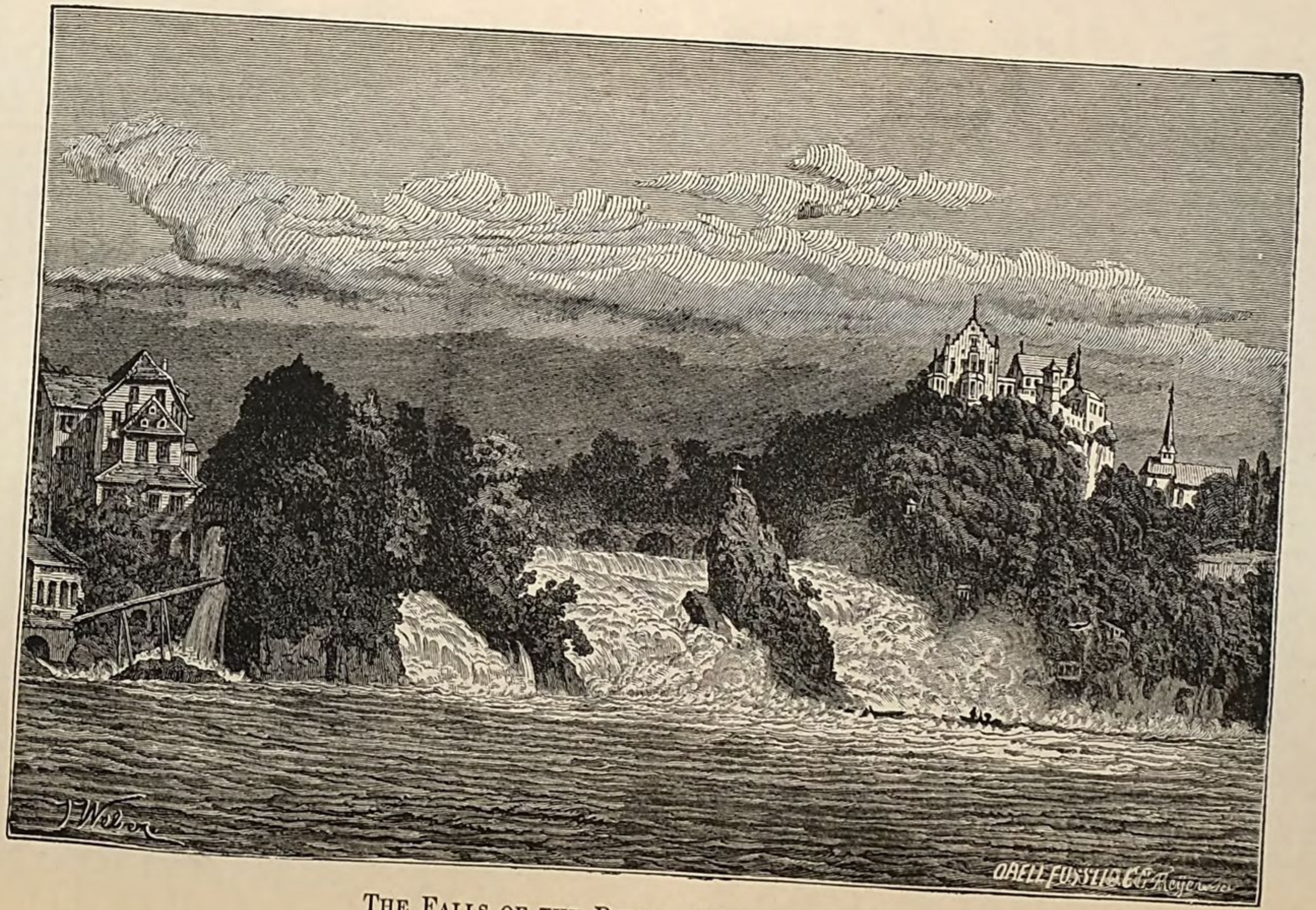
THEIR ADVANTAGES.

But notwithstanding the veto, the petitioners return to the charge, alleging that their project involves no injury to the beauty of the falls, and fortifying this assertion by an offer to furnish any reasonable guarantee to that effect. In this form the matter at present stands. It is a question of the practical *versus* the æsthetic. The one side says, "Let us develop our natural industrial resources and opportunities, and let sentiment go;" the other side replies, "See, America has protected Niagara by making it the center of a national park. Cannot as much be done for the Niagara of Switzerland?"

Without expressing any opinion other than that the project seems a most advantageous and feasible one, and that the objections against it do not appear well grounded, I append herewith a translated extract from a communication which recently appeared in the *Neue Züricher Zeitung*, of this city, and which certainly presents the case in a sensible and practical light. The writer says:

If, for instance, some one should come and ask a concession for the establishment of a mammoth cotton-mill, we should say to him, "There is no good reason why you should pitch upon the Rhine fall. You can find elsewhere in Switzerland water-

Consular No. 79.



THE FALLS OF THE RHINE AT SCHAFFHAUSEN.

condition, dependent upon great water-power, and therefore Switzerland, whose industries in other respects are lacking in natural advantages and favorable conditions over her competitors, possesses in the present instance an advantage of which she should avail herself in season. Wherever the manufacture of aluminum in large quantities first meets with success, there the kindred industries for working it will in all probability settle, for the reason that in such case a still further advantage would ensue, an advantage offered by no other branch of Swiss industry.

Our machine industries complain of high freights, for iron is indeed heavy; but, in the industries allied with the manufacture of aluminum, the question of freights would assume a minor importance, as aluminum is of such light weight.

For years past people have been saying, "Wait until greater progress has been made in the application of electricity, then, thanks to our water-power, we shall have an easier part to play in the industrial struggle," but now, that the longed-for period is approaching, shall we not take time by the forelock? Such opportunities are rare and do not easily recur. When a chance is offered us of perhaps twenty thousand men finding work in Switzerland within the next fifteen or twenty years, through the introduction of the manufacture of aluminum, we may console ourselves for the loss of a little water from the falls of the Rhine.

Ruined the falls will not be, for it is only at the time of the lowest water-mark in winter that they will be really affected at all; besides, nobody ever goes on the Rhine in winter time. For the remainder of the year precautions can be taken and conditions imposed which will afford ample protections.

UNITED STATES CONSULATE,
Zurich, February 11, 1887.

GEORGE L. CATLIN,
Consul.

AGRICULTURE IN BADEN.

REPORT OF CONSUL MONAGHAN.

AGRICULTURAL EDUCATION.

Officials, assistants, institutions, &c., connected with and making up the agricultural department:

(1) A technical institution for encouraging the improvement of horses by giving instruction as to improvement of blood, &c.

(2) Agricultural station of chemical analysis at Carlsruhe.

(3) Permanent exhibition of agricultural books and means of instruction, such as models, &c. Permanent exhibition of agricultural implements and machines.

This exhibition forms a very important part of a permanent exposition of the various industries of the state. It is under the supervision of a ministerial commissioner.

(4) Meteorological stations: These are scattered all over the state, but have a central office at Carlsruhe. There are nineteen stations in Baden.

(5) Agricultural schools: (*a*) An agricultural school at Hochburg, with one principal and two assistant teachers with a helper. (*b*) The school for teaching methods in production, care, &c., of fruit trees, at Carlsruhe; one principal and an assistant teacher, with an "overseer." (*c*) Agricultural winter schools at eleven different places in the Grand Duchy. Each of these schools has teachers of training and skill in their departments.

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HORSE-BREEDING.

The interest manifested by the Government in obtaining good clean-blooded horses from Normandy for breeding purposes is deserving of unstinted praise. Every year the best obtainable stud-horses have been purchased and sold again, at very moderate prices, to agricultural societies in the various districts, for use in propagating good stock. Sometimes they are sold also to corporations and to private parties. Then, again, in many cases the Government allows certain amounts of money to owners of such animals, enough for their keeping. Again, premiums in money amounting to thousands of dollars are given yearly to those producing the best results. Men possessed of the necessary technical knowledge go from village to village, holding meetings and giving instruction in the care and breeding of horses. The magnificent brutes, marvels of strength and beauty, which one sees, worthy offspring of their Norman sires, speak eloquently for the steady care and intelligent selection of the Baden authorities.

A law has been passed and put in full operation, under which a commission is appointed and charged with looking after and examining the various studs, public and private, and declaring as to their fitness for breeding purposes. No stud is allowed to be used for such purposes unless the owner or owners can show a certificate signed and sealed by this commission acknowledging the stud's qualifications as a breeder. These certificates are good only for a year. Of course this commission is composed of men skilled in the breeding or possessing technical knowledge in relation to horse-breeding. Everywhere an intelligent interest has been awakened. The little village meetings have done much good in encouraging thought in the matter of selection of good blood and in preventing the thousand and one evils to which young horses are liable. The many evils consequent upon bad shoeing and carelessness in regard to stalls, &c., &c., have been partially removed. A new movement is on foot to establish courses for young men studying horse-shoeing in order to give them full technical knowledge of the hoof and its care. The last report I have been able to see gives the amount of money spent in encouraging horse-breeding at 72,262 marks, or about $17,183. It has averaged that much for the last ten years. Thus we find government intelligently working with nature in carrying out her great law in seeing that only the fittest shall survive.

ANALYSIS STATION.

The scientific analyses which the agricultural analysis station makes every year are given to the public through the columns of various agricultural papers. The principal work done by this organization, noted in its last report, was as follows:

(1) In regard to wine: Influence of the dross, or pomace, of the acetates and sulphurous ingredients. The influence of allowing the juice to heat, both upon its working, fermenting, and upon the wine after- bad results from mixing stuff with the wine to [illegible] such as roots

(3) Analyses of dungs and various manures; experiments with the same upon vines, plants, trees, and vegetables.

(4) Experiments with the various kinds of waters and essences produced; analyses of the same, &c.

(5) Experiments with, and tests of, methods for producing rennet essence.

(6) Analyses of manures mixed with loam, and experiments with the same; analyses and tests of butters, flour and meals, barleys, various kinds of feed and fodder, as well as analyses of drinking-water.

(7) In producing means for destroying the various plant diseases and for getting rid of and preventing the growth of harmful insects of every kind.

The station sent out numberless useful and instructive articles on the various matters treated; took also a lively interest in securing and sending out men to lecture upon the best methods of wine culture and treatment; concerning cows; the production of milk, cheese, and butter, and upon the best methods to be employed in planting and producing potatoes. Special attention was given to the matter of watching for and guarding against that dread disease of the vineyards, phylloxera. Special courses were given for this purpose, and special boards appointed to watch, report, and take measures of safety against the very first appearance of the disease.

Many agricultural exhibitions were inaugurated and held under the direction of this station, always with the best results. At these exhibitions all manner of books and models calculated to inform or instruct the husbandman are put on exhibition, all kinds of apparatus, implements, and machines also. Chemical analyses of vegetables were made, in the presence of the people gathered, and explained. The potato was especially treated in this manner. The greatest service, however, done by the station was in answering the thousands of questions submitted to it during the year from all parts of the state.

It might be well to add at this point that agents of American tools, implements, machines, &c., might find a successful sale for their goods by having them exhibited at these fairs, exhibitions, &c., and at the great country fairs. These occur regularly three times a year, the greatest, one, that always awakens great interest, occurring each May, called the "Annual May Market."

RESULTS.

The great advantage which seems to attach to all these institutions is their closeness to the people. Then, too, the constant application of their methods and instruction makes it after a time familiar.

Much of the success of our German farmers in the West may be traced to their early training. It is not an unusual thing to meet an ordinary farmer who is able to tell you some of the great laws of nature; that like needs like to produce it; that what is taken from the soil must be put back in some way or other; that is, to soil from which wheat, oats, rye, and barley have been taken, nitrogen and silica must be given if the soil is not to be impoverished. Where lime-plants, clover, beans,

ure of sand keeps the soil in a just state of porosity for absorbing gases and heat and imparting the same in even proportions to the roots. He learns what kinds of sands are and are not dissoluble in water, and hence assimilable or unassimilable; that humus must be applied to dry areas; that the soil must be constantly turned for contact with the air, from which it absorbs ammoniacal gases, but holds them so lightly that they are easily drawn over to the young roots, which are ever greedily sucking in nourishment; and so on *ad infinitum*.

GOVERNMENT ASSISTANCE TO AGRICULTURE.

During the last eight or ten years the Baden Government has placed yearly the sum of 234,550 marks to be used in agricultural purposes. This money finds its way into various channels for stimulating excellences in culture and for all the various purposes found in encouraging agricultural pursuits. Besides the above amount 28,000 marks were voted to the Central Agricultural Society, which were used by that society in various purposes, all of which have the interests of agriculture as objective point. The Central Society expended an additional 12,250 marks from its own income. Single districts of Baden, viz, Lórrach, Freiburg, and Offenburg, advanced each the sum of 30,000 marks to be used in premiums for high standards in cattle breeding and improvements in fruit trees. The different agricultural clubs or unions, one of which exists in almost every village, spent about 50,000 marks last year for encouraging enterprise in agriculture. Thus the state, the central, and district unions, &c., spent last year the neat little sum of 414,800 marks, or about 50 marks per hectare of agricultural surface. To this sum should be added 320,000 voted to cover losses occasioned by storms and the various catastrophes to which agricultural products are liable; thus we get a total of 734,800 marks. There are about 800,000 hectares under cultivation. Forty-nine thousand five hundred and thirty marks were spent for the encouragement of agriculture in general; 78,360 for advancing the breeding of horses; 13,720 for improvement of cows, hogs, &c.; 5,900 for fish; 650 for bee-raising; 80,200 for improving and clearing fields; 77,680 for lectures, instruction, &c.; 11,000 for making experiments, chemical and otherwise.

Wherever unsatisfactory results have been reported investigations have been instituted, always resulting in the same verdict, that failure is attributable to unskillful use of farming implements; carelessness in gathering, storing, preparing, and mixing of the manures; in not making a good use of seeds; in neglecting to root out or choke back weeds; to destroy insects in time, or other things injurious to the plants; in a too limited care to provide for or against accidental dangers, such as hail, fire, frost, &c., by sufficient insurance; in the imperfect manner in which the fruit is too often gathered, assorted, and stored; finally, in an imperfect and unskillful arrangement and manipulation of the things intended for sale. To remove all these evils, none of which need to exist, and to guard against their future recurrence, no effort

COMBINATION AND CO-OPERATION AMONG FARMERS.

Combinations of farmers have been made in many villages for the purpose of buying and using in common machines and implements of the latest and most approved make, such as harrows, seed-cleaning, thrashing, mowing, raking, and bundling machines, fruit-driers, &c. Then, again, the farmers have united in districts to buy seeds in large quantities, getting them at reduced prices and saving much on the cost of transportation. The seed are afterwards divided in the presence of all, each man getting a share proportioned to the amount of money subscribed. Artificial manure, feed, and fodder, when needed, are often purchased in the same way. Thus far the system seems to be working admirably. The most important union of the farmers, perhaps, is one organized for mutual protection against middlemen and to realize the utmost possible for their goods. This is especially true of growers of hops, tobacco, and things destined for commerce. Everywhere one finds little banks, called credit-unions, in which the farmers themselves hold all the shares. Very often the village mayor will be the president, and the village treasurer the cashier and treasurer combined, of these little monetary centers. If a farmer wishes to build, or buy land, but lacks the money to begin with, upon finding and giving good security he gets the money at the bank and builds; he never gets more than half of the amount required as security; thus, should principal and bondsman fail, the loss to the union is small and to each member a trifle. Then there are all manner of insurance companies, in which losses by fire, hail, or the elements can be fully covered.

The presence of labor-saving machines soon works a revolution in a village; labor of wife and children, now turned from the heavy and exhausting toil, finds play in a greater care of garden and vegetables, increasing quality and quantity, and hence very materially the annual profits. In this way a dozen small farmers enjoy all or even better results from the new machines than the big farmers, who at one time threatened to drive the little ones out of the field entirely. The good results from buying and using good labor-saving machines and from getting large quantities of seed, artificial manure, and feed, from looking more closely after their sales, have passed a calculable figure; for besides the mere monetary value, they have been productive of many intellectual and social blessings, affording time to the farmer and his family for attending the meetings, for reading, and for social intercourse.

The work of the Government in stimulating and encouraging the farmers has been for the most part general, as its needs must be; but its delegated representatives and agents have worked with an enthusiasm and energy that have been absolutely contagious, the result being a most enthusiastic co-operation on the part of the people. That the work of the Government has been well applied; that their books, papers, pamphlets, and lectures have produced excellent results; that the premiums granted have been deserved is everywhere proven by the fact that among all the states of the Empire Baden receives and deserves her well-earned title, "The Paradise of Germany."

SCOPE AND PURPOSE OF THE AGRICULTURAL

them out in the best manner possible for their future calling, and to do this at the least possible expense to the pupil. To accomplish this the course is so arranged that theory is being constantly demonstrated by practice. The result is that the scholar, even during the two years' course, in contact with teaching and experiment, masters the principles, and returns to hillside and valley to put them in practice. The course embraces the simplest elements of natural science applicable to agriculture, special attention being given to those branches particularly fitted for the school district. Lessons are also given in practical mathematics, reading, and writing. The work of the teachers is very much simplified and assisted by carefully and accurately constructed charts, diagrams, and models; by a good, well-selected library, and by visits and practical talks and demonstrations on the part of successful, well-known, well-skilled farmers.

THE SCHOOL COURSE.

The school course embraces two winters, of five months each, from November 1 to the latter part of March. The course is so arranged, however, that persons unable to return the second year carry away from the first winter's training so much of the best practical training that the loss of the second course is not very great. Still, the teachers all agree that it would be much better for themselves and the scholars if those who enter would complete the course. The second year's work is largely review and demonstration of the first winter's work. When the review is completed as much new ground is opened and gone over as time and thoroughness permit.

The present age, with its restless spirit of search for and improvement in methods of transportation in conducting all kinds of business enterprise, is working great changes in the matter of securing profits from agricultural investments. To-day the farmer must broaden the scope of his intellectual horizon, since he is now in closer relationship with cities distant a thousand miles than he was formerly with those removed only a hundred. To his ability to plough and reap and sow he must add some knowledge. To-day he needs to be as much merchant as farmer, hence he must learn business methods. To-day he has money to invest. The stocking, the hole in the wall or ground have given place to the bank, bonds, rents, mortgages. All kinds of instruments, implements, machines for making labor easy, for preserving fruits and vegetables; are being offered; the farmer must know how to select. In a word, the husbandman of to-day must know ten times as much of what the world calls general and technical knowledge, outside of mere sowing and reaping, as was required of the farmer of fifty years ago. To help the farmer to acquire this information and to teach him how to use it when acquired is the purpose of these agricultural schools. The children of farmers leave the schools practically, as well as theoretically, prepared to help their parents in all the duties and labors of life. Wherever these scholars go the fields and vineyards take a new appearance, the cattle appear different, the barn-yard and stables more orderly, [illegible] better qualities of fruits and [illegible]native

and in none more true than in the sense that people working together work more happily.

To make these schools completely successful the parents are requested to co-operate with the teachers in seeing that their children, when once entered, study and labor industriously, go regularly, and practice at home the lessons learned at school. When farm and school work thus in harmony pleasure and profit are found by the fireside of one and the desk of the other. Only thus can the best results be obtained. These results are sure to appear in the general good, and especially in an improved agricultural system. A maximum of profits with a minimum of loss is sure to follow. Then who will estimate the profits, better than gold, in social and intellectual advancement? Not only are all these results possible, they are being surely if slowly attained in many parts of the Grand Duchy.

THE SCHOOL EXAMINATION FOR 1886.

The school examination of last year, 1886, took place March 20, under the direction of Dr. J. Nessler. The results were more than satisfactory. The guests expressed themselves as very much pleased with the high standard of the work shown. The attention to detail was to every one a pleasant surprise. The winter's work of the scholars was submitted to inspection; the closest scrutiny found little to criticise. This year, 1886, thirty pupils were registered. Twenty-six of these scholars walked to and from school, coming from neighboring villages. The remaining four lived in Ladenburg or came by train.

HOURS OF STUDY.

Each week fifty-seven hours were devoted to school work, each class receiving separate instruction during fourteen hours. The remaining twenty-nine hours were used in imparting both special and general instruction to the whole school. The school hours were from 8 to 12 and from 1 to 4. Thursday afternoons were given to the teachers for rest or recreation. The course of study was arranged as follows:

Subjects.	First class.	Second class.	Both.
	Hours.	*Hours.*	*Hours.*
German language	4	2	-------
Arithmetic	2	2	2
Geometry and field measuring	-------	1	4
Drawing	-------	-------	2
Penmanship	-------	-------	2
Natural science	2	-------	5
Practical planting	2	4	4
Practical tree planting	2	2	1
Breeding of animals	1	2	3
General agriculture and book-keeping	1	1	3
Treatment of sick and wounded animals	-------	-------	3
	14	14	29

Sometimes part of the time assigned to penmanship was employed in drawing, being considered more profitable inasmuch as the [illegible] drawing was the teacher of [illegible]

scientific instruments were supplied. The library was constantly in use, teachers interesting themselves in directing the young readers. Finally excursions were made to neighboring farms, fields, and vineyards to witness regular work and experiments performed by practical farmers. Upon all these excursions the teachers went along to make suggestions, explain methods, and answer questions. It is easy to understand that such methods were crowned with complete success; the interest of the teacher in his work being often surpassed by the scholar's enthusiasm. During the school year money was presented to the "direction" to be used in buying instruments and in granting premiums for good work. Money was also supplied to secure the services of special teachers when such were needed. These moneys came from the grand ducal government, agricultural unions, and private citizens. Hundreds of young fruit-trees were purchased by admiring friends of the school and scholars, and presented to the graduates. These trees will always be the objects of special care.

BOARD OF INSPECTORS AND DIRECTORS.

Each school has a board of directors composed of the leading citizens of the villages in the district. Generally the village mayor (*Burgermeister*) and selectmen serve on these boards.

The corps of teachers last year were, (1) teacher of agriculture; (2) two well qualified teachers of various branches, language, drawing, and penmanship; (3) teacher of treatment of animals; (4) a general helper.

"TEACHERS' HELP," APPARATUS, BOOKS, &C.

(1) A very large and fine collection of chemical and physical apparatus, Dr. Bopp's wall maps and charts for teaching physics.

(2) A collection of models and geometrical bodies, with the necessary implements for teaching mechanics, geometry, and mensuration.

(3) A collection of minerals and stones in three hundred cases.

(4) A geognostic map of Mannheim and one of Baden, Wurtemberg, and Hohenzollern land. A mountain and valley map of Baden and Wurtemburg. A large globe and physical map of Europe.

(5) A collection of seeds.

(6) A large microscope and a large collection of microscopical preparations.

(7) A collection of models of agricultural implements.

(8) A collection of dungs, manures, &c.

(9) A selection of a horse, with many different anatomical preparations, such as hoofs, teeth, &c.

(10) A numerous collection of drawings and pictures of neat cattle, different breeds of horses, useful and harmful animals and insects; the best kinds of fruits; plans for drainage, irrigation, directing water for use at a mill with undershot and overshot wheels; drawings of instruments to be used in clearing a field of rocks and stumps, besides many maps for a hundred purposes.

(11) The wall maps for teaching botany and exhibiting diseases of plants, prepared by Dr. Ahles.

(12) A collection of about four hundred choice books relating to the subjects studied, and agriculture particularly.

(13) Most of the regular agricultural magazines and journals.

(14) A geognostic wall map, by Dr. Fraas.

(15) Fruit-tree culture and planting, by Dr. Lucas.

Second class.—(*a*) Reading: Selections from standards read, criticised, and analyzed; memorizing of selections; reading of essays on agricultural subjects; (*b*) assignment and writing of short essays on general subjects, on the lesson last read, business essays, letters, reports to superiors, and statements of complaints; (*c*) dictated spelling exercises, six hours a week; mathematics.

First class.—(1) Reviews of last year's work; (2) Square root, with problems on the same, three hours a week.

Second class.—Addition, subtraction, multiplication, and division of whole numbers of known and unknown quantities; teaching of common (vulgar) and decimal fractions; double-entry bookkeeping, with methods of making statements and accounts in agricultural methods; (3) frequent mental arithmetic, four hours a week.

GEOMETRY.

Plane geometry, including lines and surfaces, spherical geometry, taking in simple bodies; (4) calculation of areas of plane surfaces and contents of simple figures, three hours a week.

DRAWING.

Construction of three, four, and many angled figures; practice in marking and assigning land and in drawing plans; the most important work in projecting, two hours a week. Models are allowed.

PENMANSHIP.

Practice in German and Latin script; models are assigned and used, two hours a week.

CARE AND CURE OF SICK AND WOUNDED ANIMALS.

(*a*) Healthy care of domestic animals; (*b*) the external care and external marks of horses, cows, &c.; (*c*) the most important things in relation to shoeing and care of the hoof; (*d*) instruction as to how age of animals is told; (*e*) explanations of the animal anatomy, the internal organs, their functions, &c.; how to assist animals when bearing and bringing forth young; (*f*) instructions as to what renders an animal unworthy of a guarantee; (*g*) description of mere passing or transitory diseases to which all animals are more or less liable; (*h*) experiments and demonstrations on living and dead animals, with practical instruction in bleeding, adjustment of throat apparatus for swallowing, the giving of medicine, &c., four hours a week.

AGRICULTURE, FIRST CLASS.

(*a*) Special instructions in planting, sowing, weeding, &c., in gathering the harvest, separating the grain, and preserving fruit; the raising of feed and fodder and garden vegetables, &c.; (*b*) breeding of cattle; how to conduct a dairy; how to feed and with what, where and at what time; hog raising, and the most important points in the breeding, raising, and caring for horses, eight hours a week.

Second class.—The underlying principles of agriculture and natural science. Explanations of those simple, yet, to the farmer, most important things, air and water. Instructions as to the chemical changes which take place in burning, breathing, fermentation, rotting, and decomposition of matter.

Explanations and instructions relating to the kinds of stone, soil, &c., most necessary and beneficial to farm land and for farm uses. The manner of pianting and caring for plants, vines, vegetables, &c.; what mode of treatment is best; how they are most easily propagated, transplanted, &c.; their chemical composition and needs; instructions as to plant diseases, how they are discovered and treated.

GENERAL CULTURE OF PLANTS AND VEGETABLES.

Knowledge of soils.—The creation or renewal of soil through allowing stones and other matter to decompose and by special kinds of planting. The component elements and pecularities of soils. Relative values of the various soils and the kind of plants to which they are severally best adapted. Best mode of (1) tilling and preparing the soil; (2) draining and irrigating.

Instruction in the matter of dungs, manures, natural and artificial. Best methods of preparing and applying, general and special instructions as to kind[illegible]
sort of plants, vines, trees, and vegetables.

Seeds; *Manu*[illegible]

BREEDING OF ANIMALS.

General view of all classes of the animal kingdom, special reference being made to those servicable and useful to the farmer as well as those which are destructive. The chemical constituents and form of the various parts of animals. The organs of the animal, their manner of working when in a state of health and when diseased, special attention being given to the organs of digestion, assimilation, and breathing. instruction in breeding, feeding, rearing, and employment of domestic animals for agricultural purposes.

GENERAL INSTRUCTION NECESSARY TO CONDUCTING AGRICULTURAL BUSINESS SUCCESSFULLY.

(1) As to funded capital, (2) working capital, (3) gross receipts, (4) net results, (5) insurance, (6) importance of agricultural unions and co-operation; improvement of farms, fields, &c., by constructing good roads, paths, &c.; irrigation, drainage, and fruit-raising.

All these subjects received careful and special attention. In the matter of agricultural book-keeping each person was compelled to write out an inventory and prepare a cash-book, as if kept for a small farm. Thus the matter was made so practical that to forget it was rendered almost impossible. The branches under N. B.—C, D, and E took twenty-five hours a week. Term for 1887–'88 begins November 3, 1887.

The committee express the opinion that children under fifteen years should not be sent to the agricultural school, only in exceptional cases. Since the course consists of five months only, each pupil should appear prompt on the day of opening and attend regularly to the close.

It may not be without good result to note the following:

The cost for a winter's course is 10 marks, or $2.50. Children not able to pay even that sum are admitted free upon request or statement of inability.

Persons who enter and complete both terms pay nothing.

Attendance at the agricultural school will be accepted by the authorities as equivalent to the same time in another school under obligation.

Attendance at the agricultural school relieves a scholar from further compulsory attendance at school, provided he has completed the agricultural course successfully.

Reading books, geometric and drawing instruments, &c., are provided by the school free for the most part, a few being lent for a mere trifle to defray expense of renewing.

The expense for the necessary writing material comes to 10 or 15 marks, $2.50 or $3.75. Scholars living at a distance will be taken into respectable families in the village at 1.20 to 1.50 marks per day—that is from 28 to 35 cents per day. Every farmer's son over fifteen; bearing a good name, will be admitted upon application.

For those scholars who live at a distance and are too poor to attend funds are provided to defray both their school and traveling expenses. No boy desiring shall be denied an education. Applications for admission may be made during the entire year to the teachers and board of directors.

Upon a system so excellent, so near to the people, so simple and practical in all its details and workings, so calculated to inspire confidence and support, comment is unnecessary.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, March 28, 1887.

IRON MANUFACTURE IN SCOTLAND.

REPORT OF CONSUL UNDERWOOD.

There are six blowing engines, four of them coupled and two of them single. The diameters of the blowing cylinders are, one of 121 inches, two of 107 inches, two of 101 inches, and one of 78 inches. In five of these the length of stroke is 8 feet 10 inches; in the sixth 8 feet 6 inches.

There are 22 boilers; 7 of them "Lancashire" and 15 "egg-end." The length of the two classes respectively is 25 feet and 35 feet; the diameter is 7½ feet. The hoists used are vertical, and are operated by steam.

The hot-blast apparatus consists of 24 cast-iron heaters. No water-power is used. No coal is burned under the blowing-engine boilers, or in hot-blast apparatus. Gas from the furnaces is used for raising steam and for heating air.

COAL.

Raw coal is used as fuel, procured from pits on the Coltness estate, and brought an average distance of 4 miles by railway. Nearly all of it is mined by the owners of the works; very little is bought elsewhere. No royalty is paid to the state. The royalty paid to owners of the soil varies from 4*d.* to 10*d.* per ton on gross weight of large and small. Forty-six cwt. are used on an average for a ton of iron.

IRON ORE.

Ordinary iron of "Coltness" brand is made from black-band and clay-band iron-stone, which comes from the mines 15 miles by railway to the works.

"Coltness hematite" or "Bessemer" is made wholly from English and Spanish hematite ores, which come by sea and by rail. The Scotch ores used are almost wholly mined by the owners of the works, while all the hematite ores are bought.

No royalty is paid to the state for the ores; but 1*s.* 4*d.* per ton of iron-stone calcined is paid to the owners of the soil.

In a charge where both kinds of ore are used there are two parts of black-band to one of clay-band.

All the ores are roasted. For fuel, 1 cwt. of coal is used in roasting a ton of clay-band ore, but none for black-band, as it contains coal. The average quantity of ore required for a ton of iron is 38 cwt.

For flux limestone is used, furnished by the company's quarries, and brought by the railway 25½ miles to the works. All of it is mined by the company. There is no royalty paid to the state, but sixpence per ton is paid to the owners of the soil.

Twelve cwt. is required for a ton of "Coltness" and six cwt. for a ton of hematite.

WAGES.

The following is a list of the various classes of workmen and their working wages:

Occupation.	Number.	Weekly wages.	Occupation.	Number.	Weekly wages.
		s.			
Masons			Engine-tend-		
Carpenters					

Men employed in moving material from unloading place to furnace, two and one-half men per shift for each furnace, paid 4*s.* 3*d.* each per shift. Horses and carts are not so employed.

No men are employed in breaking ore or limestone. Limestone is broken by machinery—Blake's breaker.

Of furnace hands the number of bottom-fillers per shift per furnace is two and a half.

TRANSPORTATION.

The average distance that materials have to be wheeled is from 40 to 50 yards. A barrow-load consists of 18 or 20 cwt.

There are no top-fillers. In molding there is employed one boy per shift per furnace; for running the cinder a keeper and an assistant; for running the iron a keeper, an assistant, and fillers.

The iron is run into sand molds. The cinder is run into iron trucks containing 3 or 4 tons, and is hauled about half a mile from furnace to tips. The weight of cinder per ton of iron is about 15 cwt. The men in the foregoing list do not help or remove the iron from the beds. One pig-lifter per furnace removes it. Wages are 30 shillings per week. Iron is moved from furnace 18, 29, and 37 miles, respectively, to shipping points, and is handled but once from beds to railway wagons. It is weighed both at the furnaces and at the railway wagons.

LABOR.

There are fourteen shifts per week. For tending hot-blast heaters one man is required for three furnaces; two are employed in cleaning yard; five in loading iron; two in other yard work; four on cinder tip; nineteen general laborers.

PRODUCT AND COST.

The average annual production of pig-iron is about 100,000 tons. The average annual production per man is 33 tons; average fuel per ton of iron is 46 cwt.; ore per ton of iron is 38 cwt.; flux per ton of iron is 15 cwt. The quantity of ore charged per ton of pig-iron produced is 38 cwt.

The cost of ore per ton charged into the furnace, including royalty paid, labor, materials, and general expense of mining, transportation to furnace, and waste in handling, is 14 shillings.

In the flux (limestone) the percentage of lime is 38 per cent., of magnesia 12 per cent., of aluminum 20 per cent., and of silica 30 per cent.

The cost of flux per ton charged into the furnace, including royalty, labor, materials, and general expense of quarrying, transportation to furnace, and allowance for waste, is 4*s.* 6*d.*

In the fuel the percentage of carbon is 52 per cent., and of ash 3½ per cent. The cost of fuel per ton charged into the furnace, including royalty, labor, materials, and general expense in mining, transportation to furnace, and allowance for waste, is 5*s.*

The cost per ton of iron produced, of supplies for engine-room, blacksmith-shop, consumed, &c., is 1*s.* 6*d.*

THE ITALIAN SILK MARKET IN 1886

REPORT OF CONSUL CROUCH.

The year opened under the influence of a speculative movement, which I have described at length in a preceding report. The originators of that movement, believing that, considering the reduced production, the lack of competition from Asiatic silk, the small stock on hand in the Italian markets and in Lyons and London, the fair amount of activity among the manufacturers, and the small amount of material held by the latter, the actual prices of raw silk did not represent its real value, secured quietly and simultaneously a large amount of silk in Milan, Lyons, Turin, and other smaller places, and were thus enabled to bring about a considerable advance in the prices. Thus, organzines, first quality, 17-19, sold in October, 1885, for 52 francs; at the end of the year they were quoted at 64 francs.

During the month of January the market was rather quiet, but at its end prices had risen 2 to 4 francs per kilogram, with special reference for raw silk, which latter article was favorably influenced by the large exportations to the United States, and by the growth in public favor of piece-dyed silks. During February and March the market was still more quiet, developing symptoms of weakness, at first partial and then general, which became more decided in April and May, as the new harvest approached. Organzines, first quality, 17-19, were then quoted at 61 and 62 francs. In May everything seemed to indicate a good harvest. The eggs were healthy and in good condition, mulberry leaves abundant, and the weather propitious to the development of the worms. Only after the fourth stage some slight injuries to the crop were perceived, not sufficient, however, even in June, to affect seriously the result.

The quantity of silk-worm eggs, incubated in 1886, was decidedly smaller than in preceding years, with the one exception of 1885, when there was a bad season, and a lack of leaves in the valley of the Po.

The quantity of eggs incubated during the last seven years is indicated in the following table:

Years.	Quantity.	Years.	Quantity.
	Ounces.		*Ounces.*
1880	1,700,000	1884	1,400,000
1881	1,600,000	1885	1,250,000
1882	1,350,000	1886	1,250,000
1883	1,450,000		
		Average	1,430,000

The cause of this reduction was evidently the lack of profit obtained in the previous years, and the lack of confidence in higher prices, together with the improved quality of the eggs, which with the improved methods of cultivation yield a considerably larger quantity of silk worms.

The production of silk-worm eggs may be [illegible] various species as fol-

According to the figures of the minister of agriculture, the quantity of eggs imported was about 540,000 ounces (27 ounces to the kilogram). Subtracting the 35,000 Japanese, 500,000 ounces would represent approximately the quantity of other species of eggs imported, which are almost exclusively the yellow French eggs. This is evidently erroneous, as the quantity of the Italian eggs is known to be greater than the quantity of the French eggs imported, and this would not agree with the figures given above, which are from a most reliable source.

Taking the average yield of Nos. 1 and 2 of the above table at about 35 kilograms per ounce of eggs, and of Nos. 3, 4, and 5 at about 30 kilograms, the total crop would reach some 41,000,000 kilograms, corresponding to the figure in the table given below. This is a very favorable result for the cultivators, the average of 33.31 kilograms of silk to the ounce of eggs being decidedly above the average of the seven years 1880–1886, as appears from the following table:

Years.	Average to ounce.	Years.	Average to ounce.
	Kilograms.		*Kilograms.*
1880	24. 22	1884	25. 76
1881	24. 96	1885	26 17
1882	23. 82	1886	33. 21
1883	28. 82		

Further factors which rendered the harvest profitable to the sericulturists were the diminished cost of the eggs, the home-grown eggs taking the place of the more expensive foreign article; the abundance, good quality, and low price of the mulberry leaves, and the fair price obtained for cocoons.

The following table exhibits the results of the harvests of the last seven years, with the prices obtained at Milan:

Year.	Cocoons.	Yellow.	Japanese.	Crossed.
	Kilograms.	*Francs.*	*Francs.*	*Francs.*
1880	41, 573, 189	3. 98	3. 64	.....
1881	39, 564, 091	4. 03	3. 48	.....
1882	31, 869, 076	4. 60	3. 90	.....
1883	41, 625, 299	3. 94	3. 18	3. 64
1884	36, 464, 663	3. 98	3. 30	3. 69
1885	32, 266, 017	3. 25	2. 75	3. 00
1886	41, 397, 323	3. 75	3. 25	3. 50

From this it appears that the yield of cocoons was slightly inferior to that of 1880 and 1884.

The actual yield of the cocoons in silk was less satisfactory. The worms passed through the various stages unusually fast, on account, it [illegible] leaves being older than usual. The chrys- [illegible] The yield in silk

more rapid. I give the prices of three of the chief articles, first quality, for the seven months:

Months.	Grèges, 7-8.	Trams, 24-26.	Organzines, 17-19.
1886.	*Francs.*	*Francs.*	*Francs.*
June	50	57	60
July	51	57	63
August	53	57	63
September	54	58	64
October	55	59	65
November	59	61	67
December	59	61	67

After the great activity in these months, especially in goods on consignment, and the filling of the contracts made in the previous months, the market in December became quieter. Possibly the numerous holidays of this month and the general custom of taking inventories at this time may have had influence in this direction. At the same time the political horizon began to assume an aspect unfavorable to all branches of commerce, and the silk market naturally did not remain unaffected. As the demand of the manufacturers ceased the dealers confined themselves simply to filling previous orders, and, believing the demand would soon reawaken, were firm in maintaining the prices at the figures reached, although since they have been obliged to yield, and prices have decidedly fallen.

The increase in the prices of silk during the year 1886 was undoubtedly less due to speculation than in 1885, but rather to the general confidence of the sericulturists, which made them hold out for good prices, and further to the general improvement in all branches of manufacture with its increased demand for raw material, as is indicated by the contemporaneous rise in cotton and wool, and especially to the return of popular favor to all-silk instead of mixed goods. Thus the demand for trams was much more continuous and steady than in the past, where they were replaced by cotton and other surrogates.

The general position of the silk reeling and spinning industry of Lombardy at the end of 1886, as compared with the preceding year, showed a great improvement.

The establishments have been brought during the past few years to a high point of efficiency, and their products find increasing favor. Evidence of this, as well as of the development of silk manufacturing in the United States, is found in the exports from this consular district. For the four calendar years, 1883 to 1886, inclusive, the exports of raw silk were, respectively, $2,169,042.29, $1,980,476.11, $3,991,270.72, $4,457,519.50. Previous to 1883 the exports were much smaller; but I am unable to give the exact figures, as there are no digests of the invoice books for those years.

Exports of raw silk for the year 1886.

Month.	Quantity.	Month.	Quantity.
January	*Bales.*		

Activity of the silk-conditioning houses throughout Italy for the year 1886.

City.	Number of conditioning houses.	Silk condition.	City.	Number of conditioning houses.	Silk condition.
		Kilograms.			*Kilograms.*
Milan	3	3, 938, 340	Brescia	1	16, 380
Turin	2	718, 213	Pesaro	1	10, 793
Como	1	206, 123	Aucona	1	9, 555
Lecco	1	169, 240	Messina	1	(?)1, 726
Bergamo	1	143, 054	Genoa	1	1, 691
Udine	1	109, 165			
Florence	1	96, 781	Total	16	5, 433, 807
Lucca	1	22, 776			

This total of 5,433,807 kilograms is made up of:

Kinds of silk.	Quantity.
	Kilograms.
Grèges	2, 749, 265
Trams	864, 925
Organzines	1, 668, 397
Grèges doubles	91, 603
Sewing-silk	59, 613
Total	5, 433, 807

Stock of silk held at the end of each month of 1886 at the general silk warehouses of the Milan Savings Bank.

Month.	Italian silk.	Asiatic silk.	Cocoons.		Waste.
	Kilograms.	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
January	76, 643	43, 677	209, 000	26, 000	47, 000
February	74, 133	50, 633	194, 000	37, 000	40, 000
March	65, 546	58, 402	152, 000	49, 060	43, 000
April	64, 958	54, 327	107, 000	41, 000	50, 000
May	62, 641	43, 363	63, 000	33, 000	31, 000
June	71, 717	34, 375	62, 000	34, 000	27, 000
July	67, 183	32, 269	58, 000	27, 000	23, 000
August	64, 036	27, 994	64, 000	18, 000	19, 000
September	65, 432	46, 179	253, 000	40, 000	25, 000
October	63, 686	53, 179	358, 000	57, 000	34, 000
November	60, 791	45, 017	396, 000	58, 000	45, 000
December	71, 402	61, 105	493, 000	84, 000	81, 000

These warehouses, affording a convenient place of deposit for silk, and greatly facilitating commercial transactions, exercise a powerful attraction on the smaller centers of Italy as well as upon other silk-raising countries, especially in the case of cocoons, in which article Milan, the center of a great silk reeling and spinning industry, is becoming more and more the chief European market. Marseilles, previously the most important market for cocoons, is already outstripped by Milan, as is evident from the following table of the amounts held on

The second half of the year was satisfactory for the carding and weaving of silk waste, an industry which is on the increase in Italy, in spite of the vigorous competition of other countries. At present it consumes about two-fifths of the product of Italy in that article, and it is not improbable that practically the whole product will ultimately be worked here.

The manufacture of silk tissues, with the exception of a few houses in Como and Milan, whose products are consumed in Italy and are beginning to find a considerable sale in France, was of little importance, as the following figures demonstrate. The silk goods imported in 1886, amounted to 525,820 kilograms as compared with 486,526 kilograms in 1885, an increased importation of some 40,000 kilograms, while the exportation was 176,990 kilograms in 1886, as compared with 174,043 in 1885.

The following table will show the range of prices during 1886 in other articles not before mentioned:

Articles.	January 1.	July 1.	December 31.
	Francs.	*Francs.*	*Francs.*
Yellow cocoons guaranteed to yield one kilogram of silk to four kilograms cocoons	13.00	12.00	13.75
Green cocoons guaranteed to yield one kilogram silk to four kilograms cocoons	12.50	11.50	13.25
Waste:			
Struse, first quality	10.25	12.50	13.50
Strazza:			
Chinese	14.25	13.25	12.50
Italian	11.75	11.25	11.50
Raw silk:			
From double cocoons	26.00	29.00	27.00
Second quality	15.00	18.00	17.00
Double cocoons	5.00	5.50	6.25
Pierced cocoons	8.50	11.00	12.00
Decayed cocoons	3.50	4.00	4.50
Recolto	2.50	2.50	3.00

In this report I have employed the denominations "kilogram" and "franc," equivalent, respectively, to about 2.2 pounds and 19.3 cents.

HENRY C. CROUCH,
Consul.

UNITED STATES CONSULATE,
Milan, March 29, 1887.

THE BANK OF SPAIN.

REPORT OF CONSUL SCHEUCH.

The rapid strides and extraordinary development of commerce and industry in Spain during the last thirty years caused the principal cities to feel the need of establishing an organized system of credit, and consequently many banking corporations were instituted under the law authorizing the issue of notes. These banks, first established in Madrid and later on in Barcelona, made loans, discount[illegible]

commerce and industry, however, gave rise in Barcelona, Madrid, Cadiz, Malaga, Seville, and other towns to a great number of similar institutions, which, by means of the issue of circulating notes, competed with the above-mentioned banks in the facility of furnishing capital for business purposes. The privilege was abused, and this abuse produced a crisis which, in year 1868, placed the greater number of these institutions in the most precarious condition and obliged them to wind up their business.

A law was enacted suppressing the issue and circulation of notes by private banks and creating the Bank of Spain, to which was granted the exclusive power of issuing notes for circulation.

The Bank of Spain, though governed by severe statutes and subjected to the supervision and intervention of the Government officers, is not a state institution, neither are its notes legal tender, nor have they the guarantee of the nation. The public at large have not, however, very clear ideas on this point, the greater part having vague opinions to the contrary, owing to the official nature of the bank, the governors or head officers of which are named by the Government. This and the intimate connection of the bank with the treasury and financial departments of the Government have given rise to the idea of the bank being a national institution, similar to the Bank of England and Bank of France.

In the beginning, when the bank was first established, the public were rather wary and prejudiced against its notes in circulation, but a long series of prosperous years has strengthened its credit, and at the present time its notes circulate throughout the nation and have never been at a discount, excepting on some very rare occasions, in times of political panic, during which the heavy run on the bank obliged it to adopt regularity in its payments, the holders of notes having thus to take each one his turn, assigned on application.

The returns to the shareholders have been constantly on the increase and the rise in the price of the shares has been proportionate. This result has been due to the opportunities the bank has had to carry out all sorts of financial operations on a large scale both with the Government and in the general market.

The credit of the bank and the profits of its shareholders rose to a high degree after the law granting it the monopoly of the issue of notes as currency. The issue of other banks, owing to the natural needs of commerce, had become very large, especially in the capital cities of the several provinces, and in many cases had given rise to heavy abuses, causing serious alarm whenever the country underwent any political commotion, unhappily an important feature in the history of its political and social development.

The bank's credit and solidity suffered but little from the competition that arose on all sides in 1881, when, on account of a temporary prosperity in general business, a great many stock companies were organized. In the desperate struggle for financial existence that ensued, the

and whose soundness after many years of proof, in the midst of great national trials and convulsions, is established beyond all doubt.

The circular referred to contains the following points:

The shareholders of the bank may have their shares registered in Madrid or at the branch offices and transfer them at will from one office to another.

The shares registered at the branch offices are transferable from one holder to another the same as at the main office.

The dividends accruing to shares are payable at the office in which they are registered, or at any other, at the will of the holder.

The dividends, if so desired, may be credited to any person that the holder may designate.

The bank discounts drafts and promissory notes payable within ninety days, when drawn up with all the legal requirements and having the indorsement of at least two persons of undoubted responsibility, one of whom is inscribed in the bank's lists of credit, which are re-formed annually.

Firms of one or more members and stock companies not inscribed in the bank's lists of credit that wish to have their signatures admitted in the discount of notes and bills by the bank, can request it with the necessary proofs of their sound business standing and solvent condition.

The lists of credit are strictly private.

The bank accepts or refuses the paper presented for discount without giving any explanation of its determination.

Although indorsed by responsible persons, the bank refuses to discount the following notes and bills: All those drawn up in a different form from that prescribed by law; notes or bills with blank indorsements, without date or in different form from that required legally for the transfer of the proprietorship of the note; those which may give rise to any suspicion of fraud.

The paper to be discounted, whether composed of one or more notes or bills, must be presented by invoice, the form for which is given by the bank, and must state the name and residence of the firm asking for the discount; the face value of each note separately; the names and residences of drawer, drawee, and indorsers; the maturity of each note separately.

Paper discounted by the bank must be indorsed to it by the holder, who then receives an order for payment by the cashier.

The bank likewise discounts coupons of the national debt, whether redeemable or perpetual, internal or exterior, and also bonds already called in.

The coupons and called bonds must be presented to the cashier, who gives a receipt, which is in turn exchanged at the proper department for an order of payment by the cashier.

The bank grants loans to reliable persons on bonds of the national debt or of the public treasury up to 80 per cent. of the market value of same, according to the official quotation, for terms from ten to ninety days and for sums not less than $100.

The borrower must make out his petition on the blank forms furnished by the bank, stating name, residence, security, amount to be borrowed, and term.

If the loan be granted the transaction must be completed by the borrower's presenting an invoice stating the class and number of securities, which is presented to the cashier. Likewise he must sign a duplicate policy, one copy of which is kept by the bank and the other by the borrower. This policy, which is authorized by a broker of the Madrid Exchange, or by a commercial broker if the loan be made by a branch office, states in full the whole transaction.

After depositing the securities and signing the policy, which must be countersigned by the subdirector at Madrid or by the director at the branch offices, the borrower receives an order for payment of the quantity asked for, less the interest agreed upon.

If forty-eight hours transpire after the grant of the loan has been notified to the borrower and the transaction is not completed, the grant is canceled.

The securities for the loan are considered as transferred to the bank without any other requisite but the mere fact of having been delivered for this object.

Should the securities depreciate before maturity of the loan, the borrower is obliged to increase the value deposited in a corresponding amount.

Should the borrower fail to redeem his pledge at maturity or increase the security if necessary, a request to this effect will be made to him in writing. Should he at the expiration of three days after this request still fail to fulfill his [illegible] is at liberty even without judicial

The bank opens credits on public values up to 80 per cent. of their market price. Requests for credits must be made out on forms similar to those used in requesting loans and furnished by the bank.

When the credit is granted the securities are deposited with the cashier and a duplicate policy made out and signed with the same formalities as in loans. This deposit must be made within three days after notice of the grant of the credit.

When these requirements are fulfilled the credit is considered open and a check-book given to the holder of the credit.

The holder of the credit may return the amounts taken up on account in whole or in part, the same as with ordinary deposits on demand, a receipt being given for each deposit.

One-eighth of 1 per cent. is charged as commission on the amount of the credit, whether made use of or not.

The bank keeps an account for each credit with mutual interest—interest being charged for the number of days on the amounts taken up and credited for the sums returned. The interest is the same as that charged for loans.

The credits are settled every four months, and the person or firm using the credit must pay the balance due the bank. If failing to do so, the bank orders the sale of the securities in the same manner as mentioned in the case of loans.

The credit once settled, it can be renewed if the bank so chooses and the holder desires it. In this case the balance remaining at the previous settlement is set down as first sum. The renewal, however, must be asked for by the holder, and the transaction is noted down in the original policy.

The commission and interests earned by the credit are charged at time of settlement or before if the holder desires to close the credit.

The interest for each sum deposited or paid out is counted from the same day of such deposit or payment.

The same rules as to property of the securities deposited, and as to method of recovery of amounts delivered at the expiration of the term of credit that have been explained in the case of loans, hold good for credits.

The bank gives drafts payable at its branch offices or by its agents at moderate rates of exchange for sums not less than $50.

The branch offices also draw on the central office, and on one another in the same conditions.

The bank has already established branch offices in the following cities: Alicante, Badajoz, Barcelona, Bilboa, Cadiz, Cordova, Corunna, Granada, Jerez, Malaga, Oviedo, Palma in Majorca, Pampeluna, Reus, St. Sebastian, Santander, Seville, Tarragona, Valencia, Valadolid, Vitoria, and Saragossa; and agents in Albacete, Almeria, Avila, Burgos, Caceres, Castellon, Ciudad Real, Cuenca, Gerona, Guadalaxara, Huelva, Huesca, Jaen, Leon, Lerida, Logroño, Lugo, Murcia, Orense, Palencia, Pontevedra, Salamanca, Segovia, Soria, Teruel, Toledo, and Zamora.

The rate of exchange between one office and another is fifteen hundredths of 1 per cent.

The bank draws on its agents for the amounts it desires to dispose of at the rates of exchange which are posted daily in the secretary's office.

The central bank and its branches take sound commercial paper on towns in which there are other branch offices at rates of exchange posted daily, as before said.

The bank and its branch offices open accounts to persons, firms, or companies that desire it. The request must be made out on forms furnished by the offices and must state residence, business, or profession, name of firm or company, and names of directors.

On opening an account the person or persons authorized to draw on the bank leave their signature in the register for recognition.

The bank refuses to open accounts to declared bankrupts, to persons without recognized property, and to those declared insolvent by judicial sentence, unless legally reinstated.

The bank credits to depositors sums paid in its notes, in gold or silver coin, or paper payable within ten days.

The first deposit must not be less than $500 in Madrid or $100 at the branch offices, the following deposit not less than $50.

[illegible] in writing must be made out at each deposit and [illegible] checks

Checks must be signed by those in whose name the accounts are kept open, if private individuals, or by the authorized representatives of firms, companies, or corporations. Individuals may also authorize others to sign for them either by power of attorney or by written communication to the directors of the bank or branch office. In all cases those authorized to sign for others must leave their signature at the register for recognition.

Checks should be for sums not less than $25, except for balance of account.

The amounts for which the checks are drawn must be stated both in writing and ciphers.

The bank is not responsible for any loss occurring on account of the loss or theft of checks or check-books, but it will stop payment of a check when not already made if the drawer notifies it to do so, until it is legally decided to whom it should be paid, the amount being kept meanwhile in deposit.

The bank closes the accounts of those overdrawing their balances and refuses to reopen them.

The bank refuses all information to third persons respecting funds deposited, unless so ordered by legal mandate.

Accounts will be closed when those for whom they are kept request it, or when, the balance being lower than $20, six months transpire without further deposits.

The bank detains all persons handing in illegitimate checks, when so proved.

Persons or companies having credits at the bank or its branch offices may dispose the transfer of sums from one place to another where the bank has an office, in favor of other persons with accounts open at the place to which the transfer is made.

Persons, firms, or companies desiring to make a transfer send a check to this effect to the office in which their account is kept, stating clearly in writing and ciphers the amount to be transferred, the office to which the transfer is made, and the name of the person, firm, or company having an open account at the latter office to whom the amount transferred is to be credited.

The transfer checks before being admitted are compared with the original stubs to certify their legitimacy. This done, and the credit of the drawer seen not to be overdrawn, a receipt is given for the amount transferred made out in favor of the person to whom the transfer is ordered, although the latter is not obliged to present this receipt to draw on the amount transferred and credited to him.

Individuals having open accounts at the bank or its branch offices and who reside outside the town in which the office is located, or who happen to be absent from the said town, may remit drafts or notes to be credited to their account after collection. These remittances must be duly invoiced, stating the names and residences of the drawees; and when more than one draft or note is to be collected, the amounts becoming due at the same date, which must not be beyond a term of ten days, should be grouped together.

The notes and bills to be collected must fulfill all legal conditions and be indorsed to the bank or branch office where the drawer or indorser's account is kept.

The bank or branch office performs all the duties requisite for the collection of the amounts thus remitted, such as presentation for acceptance and payment or protestation in case of failure to accept or pay, charging to the drawer's or indorser's account the expenses for same in the latter case. In case of protest, the bank notifies this fact by the first mail to the drawer or indorser.

Should the balance standing to the credit of the drawer or indorser be insufficient to cover the expenses in case of protest, the bank, on notifying the protest, requests said drawer or indorser to cover the difference. The bank reserves to itself the right to close the accounts of persons who make frequent remittances that require protest.

The holder of an account may draw on his credit by an ordinary commercial draft, but he must notify the bank of this draft, stating number, amount, name, and residence of payee, and term. This letter of advice is sufficient for the bank to debit the amount drawn to the drawer though the draft be not presented.

The holders of accounts may also make payable at the bank drafts drawn against them if they so state it on the drafts on accepting them; and at the same time notify the bank of the fact, which notification, as in the former case, is considered sufficient for the debiting of the amount to the account of the drawee.

Persons, firms, or companies residing outside of the legal residence of the bank or branch office where their accounts are kept may make use of payment and transfer checks the same as the residents in the town where the office is located.

Share or bond holders having their values deposited at the bank or its branches may request the bank or office to credit to ano[illegible]

When an order has been given to credit accounts with dividends or interests accruing from shares or bonds deposited at the bank, a counter-order may be given at any time; but the extracts of inscription or the deposit receipts must be presented to have the new order stamped on them.

Any person acquiring, through indorsement or other means, the property of values deposited at the bank should see that the receipts for same bear no mark indicating that the dividends or interests accruing to them are made payable to third persons. As the bank keeps no register of indorsements, when the receipts bear the aforesaid indications the owners will find it convenient to take up the deposit and renew it in their own name, or give a counter-order, canceling that of payment to third persons.

The bank keeps special current accounts in public values, the same as for money on demand.

The accounts will be opened in the name of known persons, who must sign the first invoice of values delivered, and besides have their signature at the register for recognition.

Each account must refer to one class of values, although several accounts of different classes of values will be kept in the name of one and the same person.

Holders of current accounts of this kind may draw on the values thus deposited by means of checks with double stubs, stating the series and numbers of the titles to be delivered.

Coupons of values thus deposited will be cut and collected on specified days, except when the owners notify their express desire to leave them uncut; and all new deposits must have the same coupons and no more than those already deposited.

A moderate commission is charged for the keeping of these accounts, viz, $\frac{1}{2}$ per cent. a year on the interest of values that yield it; $\frac{1}{200}$ per cent. on values that do not draw interest.

This commission is charged half-yearly, deducting the amount from the interests or dividends collected on those values having the same payable half-yearly or quarterly, and annually when the interests or dividends are so payable.

The bank accepts deposits of coin or notes on trust, whether voluntary, obligatory, or judicial. Voluntary deposits are transferable or not. All these conditions are noted on the receipt given for the deposit.

The deposits must be accompanied by an invoice signed by the depositary, who must also leave his signature on the register for recognition.

No voluntary deposit under $50 is admitted, nor any that are not multiples of 5; but several receipts will be given, if so desired, to one and the same person when not under $50 each.

A deposit on trust can only be taken up in entirety. Nothing is charged for safekeeping on trust deposits in coin.

The bank also accepts voluntary obligatory or judicial deposits on trust of public values.

Under this denomination are comprised national and treasury bonds, shares and bonds of legal corporations, listed at the exchange, and similar values of foreign countries.

Voluntary deposits are made transferable or not, at the will of the depositor, for which receipts are given.

These deposits are made under double invoice, stating the name of the depositor; whether they are transferable or not; the class of values deposited; their numeration, beginning with the lowest, and their nominal value. This invoice is signed by the depositor, whether the deposit is in his own name or in another's.

A separate invoice must be made for each class of values, and also for values of the same class when the numbers cannot be clearly stated.

The bank gives temporary receipts at the time of deposit, which are exchanged on the following day for definite ones.

The bank has the legitimacy of the values certified to by the issuing offices, and notes down this certification on one of the invoices.

Deposit receipts may be transferred by indorsement from one person to another.

The bank delivers up the deposit the following day after being so requested, and after the premium for safe-keeping has been collected.

In case of loss or burning of any deposit receipt a duplicate will be given, after advertisement in newspaper at intervals of ten days, and

Should the holder of a deposit receipt die, the values will be given up to his lawful heirs, who will have to show a certificate of his death and a legalized copy of the testamentary clause by which they are named heirs, or of the judge's decision declaring them such, when the former holder dies intestate.

The bank collects the interest due on bonds of the national debt, the public treasury, or of private corporations, when payable at the place of deposit. The coupons are cut from the bonds forty-five days before payable, and no deposits are accepted having previous coupons attached, or even the current one, if within forty-five days of payment.

Coupons will be given up in full at any time by the bank to the depositor if so requested when more than forty-five days are intervening before payment.

When a deposit is requested to be returned, after the coupon to be collected has been cut off, the bank gives a receipt for the coupon payable after collection.

Shares or bonds not having coupons and which have to be presented integral for the collection of dividends or interests cannot be given up by the bank until they have been returned to it.

Proceeds from values on deposit will be paid to the holders of receipt, unless a judicial decision is pending, or they may be credited to any one having an open account at the bank or any of its branch offices.

For values to bearer, one-half of one per cent. on the interest collected is charged for safeguard per year.

For values not drawing interest, one two-hundredth per cent. of the nominal capital is charged.

For registered values, one-half of the above amounts.

The minimum amount charged for safe-keeping is $0.05.

The premium for safe-keeping is due from the day of deposit to the day it is taken up, fractions of a year being counted by months and the last month will be counted as a whole one if more than fifteen days have elapsed, and as half a month if less.

Dues are collected on returning the deposit.

Certificates of register of the bank's own shares are accepted on deposit without charging any dues.

The bank collects the value of those bonds called in for redemption which are on deposit, no steps being necessary to be taken by the owners.

If while bonds have been deposited with the bank, any should be redeemed, on returning the deposit, the amount collected from redemption is given instead of the bond itself.

The bank transfers from one office to another values deposited, at the request of the owner, on his account and at his risk. This transfer is made through the mails fulfilling all the conditions established by the postal laws regulating this class of transaction.

When such a transfer is ordered, the owner of values deposited signs a receipt in full of same, pays the premium for safe-keeping up to date, and likewise the cost of transfer. In return, a provisional receipt will be given, exchangeable for a definite one after arrival of the values at the office to which they have been ordered to be transferred.

The bank also receives valuables and jewelry on deposit, which must be placed in cases, of which a double invoice has to be presented stating the value of the contents. The cases must bear distinct marks and inscriptions, and have strong bands when the size or weight requires them.

After comparing the contents with the invoice, the cases containing the valuables are closed by the depositor and bound and marked with both his and the bank's seal. A provisional receipt will be given on the day of deposit, to be exchanged on the following one for a definite receipt.

No deposit will be accepted of more than one case at a time, nor of any case whose declared value exceeds $15,000.

The bank only undertakes to retain the deposit in the same state in which it has been made, and is not responsible for the value assigned to it, nor for any deterioration owing to the nature of the valuables deposited, time elapsed, atmospherical changes, or any other cause not directly dependent on man's intervention.

The bank charges for these deposits one-twentieth of 1 per cent. on the declared value, quarterly, during the first year of deposit, and one-tenth of 1 per cent. quarterly every succeeding year.

The bank and its branch offices will collect private drafts payable at home and abroad, but does not cash them until advised of their

Collection of interest and proceeds from redemption of national bonds that the bank is encharged to pay may be made at any of the bank's offices without commission, bonds deposited at the branch offices having the same advantages as those deposited at the bank in Madrid.

FRED'K H. SCHEUCH,
Consul.

UNITED STATES CONSULATE,
Barcelona, Spain.

DANISH DAIRY PRODUCTS IN ENGLISH MARKETS.

REPORT OF CONSUL RYDER.

Thanks to the great rapidity of communication, combined with the low cost of transport, distant producing countries are enabled to compete successfully with the home produce in the supplies of all description of agricultural products.

Thus, as regards milk. Whilst the great capitals and larger cities in former times were chiefly supplied from cows stalled on the spot, or in the immediate neighborhood, this is now totally changed. Paris, for example, is receiving her daily supplies of this article from Switzerland; whilst London is furnished with the needful daily requirement for her dense population from the remotest parts of the Kingdom. Holland, it is said, has even commenced to take part in this traffic, although it would appear to be very doubtful if such movement is being attended with success, as the Dutch milk will scarcely find favor in the London market, where the milk of the present day is unquestionably of very superior quality. Here in this country it is felt among the dairy proprietors that although they might with all confidence be fully able to satisfy the demands of the London consumers as regards quality, the cost and risk attending the long sea voyage would be too great to admit of remunerative results. The milk during the voyage would have to be kept down to 10° or even 8° C., in order to prevent the formation of butter, or souring, and it would be of little use to think of employing antiseptic means to counteract these dangers, as the London milk-dealers would, without doubt, use all their influence to have such milk declared by the milk inspectors adulterated.

Cream, which brings enormously high prices in London, might be better able to support such expenses of transport; but as it can now only be viewed in the light of an article of luxury in London, and is only used to a limited extent, it cannot be looked upon as an export article of any material consequence.

As regards cheese, of which there is consumed in England a very large quantity and mostly of very good quality, the Stilton and Gorgonzola cheeses stand notably highest in price. Of American cheeses, very considerable quantities are sent to the English markets; whilst former dairy cheeses are found to be quite unsalable. More- England is sold at extraordi- that the

The prohibition against the introduction of live swine into England from this country has led to the erection of a large number of hog-slaughtering establishments all over this Kingdom, from which a considerable export of bacon is now carried on, but of which, unfortunately, the greatest part first passes through the intermediate hands of Hamburg dealers. It is also matter of complaint that the Danish swine are in great part too highly fattened and not sufficiently fleshy, and that it would be more advisable if the animals were slaughtered at the age of three to five months, rather than that of five to seven months.

Next as regards butter, by far the most important dairy branch in this country. The present mode of carrying on the trade in this article is of the following nature: In the very first days of the week the butter is forwarded by the dairy proprietors to the different export merchants, who collect the same, and by these it is again dispatched towards the close of the week by the cattle steamers to England, arriving in London on the Friday afternoon, so as to be in time to come into the Saturday market of that city; whilst its arrival on the markets of the north of England and Scotland first takes place on the Monday of the following week. The Danish butter will thus, on its arrival in London, be about eight to nine days old from the time of its leaving the dairy, and on the northern markets of still older date; and whilst passing through the different hands of the provision merchants, the grocers, and small dealers, a period of fourteen to thirty days may fairly be said to elapse before it reaches the consumer, and for such length of time it is absolutely necessary that the butter should remain in perfectly good keeping condition.

Under the present conditions, that which is now demanded of butter, so that it can command a high price, is that it should be of very fine quality and of good keeping properties, and, so far as concerns the fineness of quality, it will be necessary that producers should regulate themselves according to the taste and demands of the English consumers. The most exacting of the consumers require that the butter should have the taste of sweet cream, and that it shall be carefully washed out and unsalted, like the French butter. As this description of butter is, however, confined to a more limited class of the English community, the producers are recommended to use due caution against exposing themselves to the risk of an overproduction of such an article, as it must be borne in mind that this fresh, unsalted butter is now even sent from Italy to the London market, and that it is only a minor portion thereof that can be said to command the desired top prices. The great drawback to this unsalted butter consists mainly in the difficulty of its being kept in perfectly sweet and fresh condition, as well as the losses which may have to be submitted to on all such occasions when a speedy sale from one cause or another may be impossible.

The English dairy companies would appear to lay themselves out more in the production of a slightly salted butter, so-called Dorset butter. Herein lies a hint to the producers in this Kingdom as to the class of butter to which their attention might be most profitably directed. The great masses of the English public may be said to be fully satisfied with the quality of the butter sent from this

With such an extensive range of customers, a sale can easily be found for the whole of the butter exports from the Kingdom; and it is certainly far safer to build an export trade upon the wants of the great masses than on the limited circle of the wealthy classes. Complaints, unfortunately, are at times heard from England that the butter from this country is somewhat too strongly salted; but on the whole it is not advised to make any alteration in this respect, as the great mass of the customers seem to be quite satisfied with it as it is. It is, however, strongly impressed upon all dairy proprietors that the greatest attention and care should be devoted in the making of the butter, both as regards the kneading and salting, as well as in the laying down in the casks, so that it may be as far as possible of one uniform character.

Too frequently the malpractice is to be observed in a defective washing. The water should be entirely removed; as otherwise the butter will be wanting in proper consistency.

These remarks would seem to be specially directed towards the managers of the Union dairies; more especially in reference to their winter product, and in consequence of which drawbacks their articles seldom obtain the highest prices; and as these Union dairies are of immense advantage to the large number of peasant proprietors in this Kingdom (some 70,000 in number), it may be said to be of national importance that the product of these Union dairies should be more strictly attended to from beginning to the end.

In respect to a more frequent communication with the English markets, it is the opinion here that so far as the northern ports and those of Scotland are concerned, no great benefit would be derived thereby, but that on the other hand for the London market, where their competitors have almost daily communication, it would certainly be very desirable if more frequent intercourse could be established.

Again, it has been proposed that the butter should be packed in casks of smaller size than the present, so that it might be sent in many cases direct from the producer to the consumer; but it would, nevertheless, appear to be more generally held that the present drittle cask, in point of view of cheapness, convenience, and handling, and for good preservation of the butter, is absolutely the most suitable mode of packing; and when Italy has adopted a similar style of package, this is undoubtedly to be attributed to its good points rather than to the desire on the part of the exporters from that country of imitating the Danish form of cask. It is, however, strongly recommended that these casks should, as much as possible, be of one uniform size, and not containing more than 100 pounds, English weight. Whilst the Danish exports of butter to England have been steadily on the increase in the latter years, those from France have been meeting with a decline; but, unfortunately, it cannot be concealed that the exports from Holland and other countries of the article of butterine to the English markets have of late years been steadily and largely increasing; and it is from this export branch that the Danish butter trade is most dangerously threatened.

The Dutch butterine, partly unmixed or in part mixed with butter, is packages of all possible descriptions, the latter being

marks on the casks is only too palpable. The remedy against this crying evil can only be looked for in a more careful and more stringent mode of inspection on the part of the English officials to defeat this disastrous traffic.

Butterine, it cannot be denied, as before said, is the enemy most to be dreaded by the dairy proprietors.

The finest description of butter will unquestionably always meet with a ready sale; but the danger lies in the article of more or less inferior quality, and it cannot therefore be too strongly impressed upon all butter producers that the butter made from milk where the cows have been abundantly foddered with swedes or turnips can never be expected to obtain the highest prices; and with the dreaded competition from butterine, together with the very keen competition which has to be encountered in the English markets from their Irish and other numerous competitors, it will become absolutely necessary to strain every nerve towards the production of a first-class article if the Danish dairy classes do not wish to succumb to the competition of these two dangerous opponents. It cannot, either, be too forcibly brought to the remembrance of all connected with the dairy business that whilst the manufacture of butterine is year by year being largely on the increase, the quality of this article is likewise at the same time steadily being brought to greater perfection, and that its competition with the lower grades of butter will, as a natural consequence, with each succeeding year become a struggle of greater intensity.

HENRY B. RYDER,
Consul.

UNITED STATES CONSULATE,
Copenhagen, September 30, 1886.

IS DANISH BUTTER DETERIORATING?

REPORT OF CONSUL RYDER.

It may be as well to observe, in the first place, that it was first in the years 1870–'78 that the great development in the butter exports from this country can be dated, and that it was likewise at that period that this butter had obtained its high repute on the foreign and more especially in the English markets. It was then a constant theme in the correspondence of the English provision traders to their constituents in this Kingdom that Danish butter was the best in the world, and that it was greatly sought after in all the English markets owing to its vast superiority over any of its competitors. The dairy farmers here still try to flatter themselves that they are yet maintaining this position of superiority over all their rivals, and spite of complaints, which are becoming more and more frequent, that the quality of their butter is no longer of the same high standard as formerly, they seem scarcely inclined to pay sufficient attention to these remarks. In the mean time it would appear that these complaints are day by day more accentuated, and the opinion is constantly expressed that this butter [illegible] several degrees in quality dr[illegible]

treme difficulty, to bring forward any decisive proofs of the correctness of these assertions; but nevertheless it would seem to be the general opinion of these experts that Danish butter can no longer be said to maintain its former lead in the foreign markets, and that the sales are attended with more difficulty than in former years. It is at the same time remarked with much justice that too great attention should not be paid to the low prices which have been the rule of late in the butter market, for whilst all other produce has in recent times had to submit to a decline of several per cent., it could not otherwise than be expected that the turn would also come to the butter markets.

By the exporters it is held that of the exports in the present day from this country no more than 20 per cent. thereof can be fairly entitled to rank under the standard of very finest and faultless class of butter, and that it is not even of unusual occurrence for some of the casks of the most renowned brands from the large estates to be rejected on arrival by their English customers as not coming up to the stipulated requirements, which was a thing almost unheard of in former years, and that the purchases on the spot by English traders may be said to be confined to this fractional amount of the exports, whilst the remaining 80 per cent. have now to be shipped on consignment at the risk and cost of the Danish shippers.

Whilst these exporters and all who are intimately acquainted with the trade are ready to admit that Danish butter still holds its prominent position in the English markets, this praise, they add, must, however, be confined to the before-mentioned fractional part thereof, and that how far this may exceed or be below the stated 20 per cent. it is difficult to say, and these views are strongly corroborated by the published reports of the different exhibitions of dairy produce which have been held throughout the Kingdom in the latter years.

These reports are in no way in contradiction of the opinions held by the exporters and those acquainted with the trade when they say that only one-fifth of the Danish butter can at the present time be considered as being of very finest quality, inasmuch as by the decision of their own judges premiums for butter of very finest quality were only awarded to one-fifth of the exhibited brands; and at a large butter show lately held in the town of Kjöge the results were almost the same, premiums having only been awarded to 43 out of a number of 239 exhibits, and that here, as at other shows, the premiums were mainly awarded to the butter sent from the large manorial estates, whilst the medium-sized dairy farms, both with regard to the relatively larger or smaller producers, were left far behind in respect to the quality of their products.

It seems to be the concurrent opinion of all that the two leading factors in connection with this retrograde movement may be sought for under the following heads:

First, in the course pursued in the foddering of the cows.

It is well known that when in the seventh decade of this century every exertion was made to promote the improvement in the quality of the [illegible] impressed upon all dairy farmers that a good [illegible] consist of wheat bran and [illegible] the in-

should be considered as constituting highly objectionable fodder materials for milch cows. It is true that at the present time both oats and rape-seed cake as well as a certain amount of bran are still used; but when attention is drawn to the trade now carried on with various kinds of feeding stuffs in all the districts, it is at once noticeable how largely the sale of bran has decreased, whilst on the other hand the sale of other modern fodder materials, such as earth-nut cakes, cotton seed cakes, turnsol-seed cakes, &c., has been on the increase. Whilst fully admitting that these rich oil cakes can be bought by the dairy farmers at less cost than the bran, the question is plainly put before them of the influence exercised by these feeding stuffs on the quality of the butter, and it is feared that it cannot be denied that it has been too generally the custom to depart from the most successful and best of all feeding stuffs to replace them with others of more doubtful value, and so far as turnsol-seed cakes are concerned, certainly with one of more injurious tendency. To this it may also be added that in parts of Jutland it would appear a general feeling of confidence has of late been placed in the use of turnips as feeding material for their cows; thus, whilst for ten years back this was considered as the most pernicious of feeding stuffs in connection with the quality of the butter, it is now too generally advocated as affording good milk fodder.

Even in the agricultural journals articles are frequently to be met with strongly recommending a liberal use of turnips (1 to 2 bushels per cow daily) as being an economical as well as lucrative fodder for the cows, and it is at the same time maintained that such liberal supply of turnips places no obstacles in the way for producing the finest quality of butter; but that it will always be advisable to put a suitable amount of saltpeter into the milk or cream to neutralize and remove any bad taste that might be caused through the use of the turnips. This seems plainly to indicate that in the latter years too great weight has been placed upon obtaining an increased production, whilst a less careful attention has been devoted to an appropriate course of foddering, in connection with the desired quality.

Regarded in a purely economical point of view, no one attempts to dispute that it is possible to produce a larger yield and at less cost with the aid of turnips as main article of fodder in comparison with other feeding stuffs; but when it is asked what influence the various feeding admixtures have had upon the quality of the butter, so surely will turnips and saltpeter not be considered as having constituted one of the agencies that have conduced to the fineness and reputation of the butter produce.

Turnips, it is further admitted, have frequently been given in large quantities in the autumn, when the cows are removed from the fields during the first weeks of their being brought into their winter stalls, when it is an object at as low cost as possible to guard the cows against a too great falling off in milk during the change from grass to winter fodder, and it follows to reason that this course of foddering will yield a large amount of milk; but, notwithstanding that a suitable quantum of saltpeter was put into the milk, it was never acknowledged by competent judges that the butter could be denominated as [illegible] all the attempts that have been [illegible] turnips [illegible]

same amount of butter as can be obtained with turnips, and judging from all experience it may with safety be said that turnips and saltpeter can be set down as one of the main factors in lowering the previously high reputation of Danish butter.

Secondly, to a greater laxity in the care and attention so constantly called for in all dairy operations.

Here as well as in the relaxed care paid to the foddering of the cows just as little praise can be awarded on this score for any earnest attention in the carrying on of the work so as to secure the requisite training to give assurance of proper preparing of the butter, and again it must be noticed that whereas in the seventh decade of this century it was generally admitted that although on the large as well as small dairy farms, whilst following their old customs and practices, they might be able to make good butter for their own use, they were, nevertheless, entire strangers to those new and improved modes of procedure which have to be pursued when fine butter has to be made for sale, and when in these sales have to be looked to as a main source of income.

It was at that time deemed absolutely necessary that such modes of procedure should be carefully taught, and in furtherance of these views well-trained assistant instructors were kept in constant activity in going from dairy to dairy, where an eager desire was felt for guidance and instruction, and their labors were so well carried out that a full knowledge and practice in the modes of preparing the finest class of butter was widely spread throughout the land. But it has been the greatest mistake to imagine that this knowledge once acquired could be kept up without fresh nourishment and support. Even the most capable dairy helps, who have been educated and brought up to the work, will become lax in their work after a time and by degrees contract objectionable habits unless they can occasionally look around and obtain fresh ideas from others conversant with the business and thereby be in the position to become acquainted with such new and improved methods as may be taking place outside of their own circle.

Such instructions unfortunately are no longer so eagerly sought after in these days. One and all seem to consider that they are sufficiently educated and skilled in their work, and the result of this apathy and self-conceit is to be seen whenever this previous active agency has been discontinued; and it may be added that the large dairy proprietors have not either shown a good example in this respect. In former days also the Agricultural Society took an active part in promoting the practical education of the dairy helps; and, in conjunction with their exertions, a private dairy school was established in the island of Zealand, which has been the means of sending out into the world a number of well-taught and efficient dairy people, and it must always be a matter of regret that the Agricultural Society were influenced in the discontinuance of their work of practical education, on the grounds that this private work was of such extensive character that their interference no longer called for. The private educational work is without [illegible] that it is scarcely of that solid and [illegible] discontinuance

I am at the same time of the opinion that a third factor might have been brought forward as having materially contributed to this deterioration in the quality of the butter. I would allude to the large number of Union dairies which have been established in the latter years all over the country, to which, as I mentioned in previous dispatches, the great development in the butter exports have been in large measure due, whilst at the same time, from the numerous difficulties which these dairies have to contend with, it is universally acknowledged that the produce from their works has never been classed under the standard of finest and faultless butter, but rather the reverse.

HENRY B. RYDER,
Consul.

UNITED STATES CONSULATE,
Copenhagen, November 9, 1886.

ACQUIRING LAND IN SUMATRA.

REPORT OF CONSUL ECKSTEIN.

Application has recently been made to me by parties in the United States for information as to the Dutch laws concerning the purchase of plantations in Sumatra by foreigners, and whether foreigners can acquire land in Sumatra, and under what conditions.

The India Mercury, a weekly journal devoted to colonial affairs, and published at Amsterdam, in its issue of last week contained an article discussing the subject of Americans apparently contemplating to enter the field (I might say "fields") of Dutch East India by procuring lands in Sumatra for purposes of tobacco cultivation.

Believing that this matter may be one of more of less importance to certain of our citizens, and that inquiries regarding it may possibly be made at the Department, I concluded that furnishing some information on the subject might perhaps be appreciated.

With this end in view I solicited at and obtained from the department of the colonies at The Hague a written statement, of which the following is a correct translation, viz:

Agreeably to your favor of the 25th instant, I herewith beg to furnish you with some information concerning the granting of lan ds for agricultural enterprises in the island of Sumatra.

In all the regions (*gewesten*) of that island, which are under the direct administration of the Dutch Government, the governor-general is empowered to grant, on the request of applicants, waste lands on an emphyteutic lease (*erfpacht*) for a term not exceeding 75 years, against an annual quit-rent (*canon*) of 1 guilder per 7,096 square meters).

The application must be accompanied by a certificate of measurement of the lands selected.

The lands granted on an emphyteutic lease are subject to a ground tax amounting to three-fourths per cent. of their estimated value.

No quit-rent or ground tax is levied in the year in which the grounds have been acquired, and in the five ensuing years.

For every workingman employed on the establishment in the service of the tenant by emphyteusis, a capitation tax (*hoofdgeld*) of 24 guilders.

None but residents (*ingez*

In the provinces governed by indigenous or native princes under the sovereignty of the Netherlands (Siak, Serdang, Deli, Langkat, &c.), belonging to the residency of the east coast of Sumatra, lands for agricultural enterprises are granted by those princes.

The grants conferred by them, based on a temporary cession of the soil against payment of an annual rental or indemnity, are subject to the approval of the Indian government.

The above information, whilst it is entirely authentic as far as it goes, may not be sufficiently detailed and comprehensive to serve the practical purposes of parties in the United States who may have the intention to become interested in the cultivation of tobacco in Sumatra.

If there are any such, it would seem to me to be advisable, if not necessary, for them to apply for further and fuller particulars on the subject, through agents or representatives in the colonies, to the proper authorities there.

In conclusion I deem it interesting to be stated that the two principal companies in Holland engaged in the culture of tobacco in Sumatra, one having its head office at Amsterdam and named the "*Deli-Maatschappy*," and the other at Rotterdam, named the "*Tabak Maatschappy Arendsburg*," have within the last two weeks declared dividends, arising from last year's sales of the crop of 1885, amounting, respectivelly, those of the former to 108½ per cent., and those of the latter to 100 per cent.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, April 6, 1887.

THE YANGTZE-KIANG RIVER.

REPORT OF CONSUL JONES.

I have conversed with Consul-General Kennedy touching an examination of the Upper Yangtze River, in order to study the capabilities of that region for the extension of trade. I also, at the instance of the consul-general, conversed with several of the leading American merchants of Shanghai, who naturally desire additional markets and the promotion and development of trade in the interior.

At Chinkiang I met an intelligent and observant missionary who has visited the Upper Yangtze, and has established a mission at Chunking, a populous city 400 miles above the rapids. It appears that merchants are not permitted to reside at Chunking, or to open establishments or warehouses, so long as steamers have no access to the port. But when steamers have succeeded in ascending the river so far, arrangements can be made to open Chunking to trade. The explanation of this is, that just beyond Ichang, which is 360 miles above Hankow, the river runs through a series of mighty gorges and forms rapids, the possibility of navigating which by foreign-built steamers has never been [illegible] missionary above alluded to, has passed these [illegible] which opinion

more to the sea. On its banks are innumerable villages, towns, and cities, which are the outlets to populous regions in the interior.

All this upper river country is described as being very beautiful, of great fertility and capacity for trade, and is perhaps the most populous portion of China.

To give an idea of the vast number of inhabitants, I may mention that this province of Kiang-su has a population of 60,000,000 of people.

It will afford me great satisfaction if I can contribute in any way to the development of American trade in China.

ALEXANDER C. JONES,
Consul.

UNITED STATES CONSULATE,
Chinkiang, China, March 22, 1887.

LEPROSY IN SOUTH AFRICA.

REPORT OF CONSUL SILER.

I have recently read in American papers accounts of the existence of leprosy on the Pacific coast with expressions of fear that the disease may become widespread. This fear is but natural, coming from a country whose inhabitants have heretofore enjoyed immunity from a disease certainly the most loathsome and most to be dreaded to which humanity is heir. A few facts, therefore, pertaining to the disease in South Africa, where it is widespread and apparently increasing, may be of interest at this time.

The date of the first appearance of leprosy in Cape Colony is uncertain, but authenticated cases are mentioned in the old Dutch records upwards of one hundred years ago. The Dutch, at the time the colony passed to Great Britain, were slaveholders and introduced a large number of Malay slaves. Those slaves were obtained from the Malay Archipelago and adjacent islands. Their descendants are very numerous in the colony, Cape Town alone containing 15,000, or one-third of the population. The Malays and their descendants are more subject to leprosy than any other class of inhabitants here, and it seems highly probable that the disease was first introduced in the colony by Malay slaves.

Not until 1845 was any attempt made by government to check or to stamp out the disease. In that year a leper asylum was established at Robben Island, 7 miles from Cape Town, and up to 1884 744 lepers had been admitted to the institution, and comprised but a very small proportion of the leper population, as the segregation of lepers was not made compulsory. In fact, lepers mingle freely with the other citizens, and their appearance is so common that they attract little attention in the streets. At the Cape Town fish market I have seen lepers at work cleaning and curing fish, and the disgusting sight did not seem to deter buyers.

The rapid increase of the disease, particularly among the European population, as described in the recent reports of district surgeons, aroused the colonial government

CAUSE OF THE DISEASE.

The primary cause of leprosy has never been determined. It is questionable whether it rises spontaneously. But where there are germs of the disease its spreading is undoubtedly facilitated in great part by dirty living, unwholesome feeding, and loose habits. Exclusive fish diet is dangerous; and the fact is noteworthy that the disease is particularly virulent among the fishing population. One physician who has given much study to the subject attributes to the use of bad fish most of the disease in this colony, though this opinion is not shared in by the majority of authorities. Indeed there are practitioners who deny the fish theory altogether, and point for their support to the fact that leprosy flourishes in countries where fish is rarely eaten.

ITS CONTAGIOUS AND HEREDITARY CHARACTER.

That the disease is hereditary no doubt seems to exist; and that it is contagious is generally admitted by medical practitioners of this country—a small minority even holding it to be infectious. Recent microscopic investigation has established the fact that the diseased tissues and secretions are invaded by numerous parasitical organisms called *bacilli*. This specific bacillus of leprosy is no doubt the true cause, and it is spread by inoculation, either by direct contact with the secretion or suppurating sores of the leper, or transmitted by the clothes, utensils, pipes, &c., containing these parasitical germs of the disease. To touch a leprous person with a sore finger, use the same knife or fork, or to drink out of the same glass, may be the means of communicating the disease. But the same law holds good with leprosy as with other contagious diseases; much depending on individual constitution. Impaired nutrition from insufficient or impure food, unclean habits, exclusive fish diet doubtless predisposes to the invasion of the bacilli, which in a healthy, vigorous constitution would find no admission. While many instances may be pointed out here where men cohabited with leprous wives without contracting the contagion, well authenticated cases are vouched for at the asylum in which the disease was communicated by playing on a flute previously used by a leper, sleeping in a bed previously occupied by a leper, baiting a leper fisherman's hook, &c.

SYMPTOMS.

Dr. Atherstone, an eminent physician and member of parliament, who has made leprosy a special study for over thirty years, has kindly furnished me with the following memorandum describing the symptoms of leprosy as found in Cape Colony:

There are two distinct forms in this colony, namely, the anæsthetic and the tubercular, but I believe they are both the same specific disease. In the anæsthetic the fingers or toes are first affected—altered sensibility, either a burning sensation or the minute peripheral nerves of the skin being affected. which are quite insensitive; dron off.

with both hands and feet off. One of the worst cases pointed out to me was that of a man with none of his face left, with the exception of a portion of the lower jaw and forehead, the nose, eyes, tongue, and cheek-bones having disappeared. He was only living because the vital organs had been unmercifully unimpaired. It has been my lot to witness much human misery and distress incident to war and contagious epidemics, but I have seen nothing, nor do I believe it possible for the mind to conceive anything, so terrible and abhorrent as the awful picture presented by a congregation of lepers.

TREATMENT.

The disease is considered incurable. The patients who arrive at Robben Island are, as a rule, found to have been badly fed. After admission they get comforts—warmth, good food, and proper clothing—and then the disease becomes stationary for a time, and makes but little progress for a considerable time thereafter. A liberal supply of fatty food tends to keep the disease in check. Carbolic oil, used externally, cod-liver oil, and tincture of blue-gum (Australian Eucalyptus), internally, have been efficacious in staying the inroads of the disease. But after all, these and all other remedies only tend to prolong the disease, for once affected with the leprous taint the victim is doomed to slowly, but surely, rot away until mercifully relieved by death.

PREVENTIVE MEASURES.

Colonial experts agree that the spread of the disease can be prevented, and that it can be stamped out by stringent repressive measures, looking to the segregation of lepers. The result of a parliamentary inquiry held in 1883 was the following unanimous recommendation:

> That it has been conclusively proved to your committee, that by proper measures, energetically and efficiently carried out, it is possible to arrest the further progress of the disease, and ultimately to stamp it out altogether. That for the accomplishment of this object an act for the compulsory segregation of all lepers is necessary, and the establishment of leper institutions in suitable localities where perfect isolation can be secured.

It might be added that the segregation of lepers would avail but little in stamping out the disease, unless the sexes were strictly kept apart, for it is conclusively shown that the disease does not impair the procreative powers, but that, on the contrary, lepers, especially the females, are peculiarly libidinous.

LEPROUS ANIMALS.

The remarkable fact that leprosy is communicable to animals has been observed at Robben Island Asylum, and is vouched for by unimpeachable authority. Pigeons shot near the leper wards have been found with unmistakable symptoms of leprosy; mice have been caught in the leper wards, presenting the usual characteristic symptoms of leprosy. Twelve pheasants sent to the resident surgeon for breeding purposes died in eight

be communicable to human beings through the agency of animals suffering from the disease being used as food.

CONCLUSION.

The disease presents such strange physiological idiosyncrasies that it is not to be wondered at that medical experts widely disagree on the question of cause and contagious character. A case with which I am well acquainted will illustrate its seemingly mysterious power of propagation. In one of the oldest and wealthiest Dutch families in this colony the mother is a confirmed leper, of the type described as "tubercular," by Dr. Atherstone, before alluded to. The father and a large family of strong, healthy, grown-up sons and daughters show not the slightest taint. I have several times enjoyed the hospitality of this family and availed myself of the opportunity thus afforded of inquiring into this melancholy case with the view of a possible solution. I am assured that neither on the side of the father or mother a case of leprosy had ever occurred in their families, and they are able to trace their genealogy back at least one hundred years. But I ascertained the fact that the husband and wife were first cousins, and that their families had intermarried for several generations. It is just possible, therefore, that the well-known tendency which the intermarriage of blood relations has, *i. e.*, to lower the physical standard, made the wife's constitution predisposed to readily receive the germs of leprosy. But as she is positive in her assertion that she never in any manner came in contact with a leper, the manner in which the bacillus of leprosy was communicated to her must remain an impenetrable mystery.

After sifting the mass of conflicting evidence on the subject, it is safe to lay down the following general axioms applicable to leprosy:

(1) Leprosy is contagious.

(2) Insufficient or bad food (particularly bad fish, or exclusive fish diet), unclean habits and a consequent low constitution, predispose to the disease.

(3) Healthy and vigorous persons, unless they place themselves in reckless contact with lepers, enjoy comparative immunity.

JAS. W. SILER,
Consul.

UNITED STATES CONSULATE,
Cape Town, March 24, 1887.

TROPICAL FRUITS OF VENEZUELA.

REPORT OF CONSULAR AGENT ROMBERG.

La Guayra, on the Gulf of Cariaco, about 35 miles

is under cultivation, all of which is devoted to cocoanuts and sugar-cane, though all these lands could be easily utilized for the cultivation of every kind of tropical fruits and vegetables.

The valley of the Manzanares River, extending from the gulf to the village of San Juan, a distance of 12 miles, is spacious and fertile, and is also well adapted to the raising of all kinds of tropical fruits.

The dry season lasts from January to June; the rainy season extends through the rest of the year. On the gulf coasts, the dry season is generally healthy, but during the rainy period frequent cases of malarial fever occur. This malady is rarely fatal, however, and readily yields to quinine treatment. Along the Manzanares River it is uniformly healthy.

The pineapples and grapes of this section are famed for their size and flavor, and, with proper means for export, might be raised in immense quantities. Lands suited to the purpose lie only a short distance in the interior, and are reached by easy roads from this port.

The unsurpassed excellence of the fruits of this section and the facility for their cultivation can be easily demonstrated; so, with the investment of a small capital and the inauguration of quick transportation, a fruit trade of any desired proportions might be readily established. Lands are held at nominal figures and may be obtained on very easy terms. Natives can be hired at 50 cents per day, or at a monthly rate. Farming on shares is also practiced to some extent. There are no export duties levied on fruits, as is the case with other products, and port charges are reasonable.

Much foreign capital is seeking investment in Venezuela, and is being invested in railroads and other costly enterprises. If it be true that the tropical fruit trade is profitable in the United States, and means for speedy transportation from this coast can be cheaply devised, then it is safe to say that this is the place for the business, and that those who embark in it will, from small outlays, reap satisfactory returns.

JOSÉ G. NUÑEZ ROMBERG,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Cumana, Venezuela, April 4, 1887.

MEXICAN RAILWAY AND TARIFF.

REPORT OF CONSUL ALLEN.

The opportune moment for commercial exploitation of Mexico on the part of the American merchant and manufacturer is near at hand. This opinion is based upon the following facts: First, the extension of the Mexican International Railway, and, second, the revised tariff list, as enacted by the last Mexican Congress, and which goes into effect the 1st day of July next.

Central at Laredo, some 300 miles distant, and ultimately terminate at one of the Gulf or Pacific coast ports of Mexico. It passes through a section of country in the past having but limited commercial relations with the outside world, and where the methods of transportation employed were circuitous, expensive, and occupied much time. The general character of this country is favorable to the development of an extensive and lucrative commerce, containing, as it does, valleys rich and fertile, well populated, adapted to the cultivation of all cereals, and large tracts well wooded and watered. The celebrated Laguna district, one of the most productive valleys in Mexico, is tapped by this line. Its soil is peculiarly suited for the successful cultivation of cotton, being bountifully supplied with water by a natural system of seepage. Irrigation is unnecessary, and the absence of deteriorating influences, such as early and late frosts and heavy rains, enables the planter to harvest his entire crop absolutely free from stain or discoloration. In this district the Mexican cotton-planter, with his primitive methods of cultivation still in use, receives an average yield of 400 pounds of lint (or gin) cotton to the acre, while the average yield of the United States does not exceed 250 pounds; the cost of production to the former is 5½ cents per pound, while that of the latter is from 6 to 8 cents, and the Mexican planter is protected from competition by an import tax of 6 cents per pound on all foreign-grown cottons. Fruits of all varieties are found in this region, and the wine-grape is grown with marked success; a just approximation of its fertility and resources can only be reached by a comparison with the sterility of the frontier.

THE REVISED TARIFF.

Under the operation of the revised import list duties are so largely reduced that many articles of American manufacture will be brought within the reach of the poorer classes, thus creating a demand which hitherto has not existed; especially will this be the case with canned goods and American prints; on the former the duty has been prohibitive, or nearly so; on the latter the reduction in duty is great. Thus the increasing and cheapening facilities for transportation, assisted by confidence and respect for our people, which is the outgrowth of a conviction rapidly becoming fixed in the Mexican mind that American citizenship is a guarantee that its possessor will be protected in every legal and just right, is breaking down all barriers to a full and complete establishment of trade relations on a sure and lasting basis. Spasmodic efforts in this direction will accomplish no permanent good. The American merchant must realize that action, persistent and earnest, is necessary, and to my mind the most efficacious method to be adopted is that of sending active, earnest, and intelligent representatives to the Mexican market. In the large area now opening up, the American should take the initiative; for some time to come he would not be brought into sharp competition with the merchants of the Old World, whose un- [illegible] rewarded by such rich harvests in the older

amount levied, since reduced by gubernatorial action to 3 per cent., and the fear that new laws of a like nature may at any time be passed rests as an incubus on the development of trade.

W. G. ALLEN,
Consul.

UNITED STATES CONSULATE,
Piedras Negras, April 7, 1887.

TRADE AT PORT STANLEY.

REPORT OF CONSUL FRANCIS.

The most noticeable feature in the exports from this consulate to the United States during the last six months has been the amount of eggs and green apples, the former valued at $84,047.37, and the latter at $26,002.25, with $7,780 of dried apples, making $33,782.25. The eggs were invoiced at 10 and 12½ cents per dozen; the apples, early part of the season, at 80 cents and $1 per barrel, including the barrel.

The eggs are collected in the country by itineraunts, in exchange for goods or money, at 6 to 8 cents per dozen, and taken to establishments erected for the purpose, where they are put through some process which it is said will keep them good for six months or a year, packed in barrels, and shipped.

The apple crop throughout this section was in excess of that of any season for a number of years, and their scarcity in the States bordering the boundary line made them in great demand. Some fears are expressed as to the continuance of this (section) being a good apple-producing country, as it has been noticed the fruit has been growing less perfect and smaller every year, being stained with black spots, penetrating the fruit, and making that of some orchards and of some varieties almost unsalable. It is learned that not many years since plums and all varieties of cherries were produced in this part of Ontario in perfection, but a disease called the "black knot" destroyed nearly all the trees, and it is now said is attacking the apple and pear trees.

The demand for Canadian barley in the States is on the increase (said to be on account of its superior quality), and the crop of last season in many instances was bargained for in advance of being harvested.

The value of barley shipped to the States during the past six months ran up to $111,447.40. Prices ranged from 35 to 37½ cents per bushel.

Within the last three or four months parties from the States have been in this section purchasing horses, succeeding to their satisfaction, and shipping thereto 149 head, valued at $23,913, prices ranging from $75 to $250. Notice has been given that agents from England will shortly arrive, looking for horses for the English cavalry, in view of which and the approaching farming season, the price of good horses has advanced.

Other than a shipment of unhackled flax, of the value of $2,380, no new product is noticed among the exports to the States.

The value of declared exports

machine-shops, a white-bronze monument establishment, a feather-bone factory, three planing-mills, and one brewery. The large establishment for manufacturing farming implements has been closed for more than a year. Saint Thomas and neighboring towns are offering bonuses in the way of money, free water, and exemption from taxation for a term of years as an inducement for manufacturers to locate therein.

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The number of emigrants to the United States applying to this consulate for certificates as to personal effects during the last six months was 189, of which 62 were heads of families.

ALLEN FRANCIS,
Consul.

UNITED STATES CONSULATE,
Port Stanley and Saint Thomas, Ontario, April 11, 1887.

NOTES.

Foreign dentists in Germany.—Consul-General Raine writes from Berlin, April 9, 1887:

I transmit a translation of the following order, just issued by the president of the police board of Berlin, Mr. v. Richthofen:

"Whereas the royal privy court (*Kammergericht*) by several of its decisions has established it as a principle that only such persons can assume the title of dentist, no matter whether they state 'that they have received a diploma in other countries' or 'have not received a diploma in Germany,' who have previously secured a certificate of qualification from the board of examiners of the German Empire; and whereas the same court has finally decided that the designation of 'American dentist' in connection with the title of doctor is a violation of section 147, No. 3, of the imperial trade law, because such title, resembling that of a regularly approved physician, may lead to the belief that persons assuming the same have been properly approved and examined as medical practitioners in this country: therefore I require of all persons concerned to abstain hereafter from using such designation publicly on signs, cards, in newspapers, and other advertisements, &c., and to remove within three months from their houses, offices, and dwellings all signs of such description, otherwise they must expect that they will be subjected to penalties and other police measures to cause compliance with this order."

Similar orders have been published in other cities of Germany.

Domestic exports, Hawaiian Islands, first quarter 1887 *compared with first quarter* 1886.

Articles.	1887.	1886.	Increase.	Decrease.
Sugar ..... pounds..	66, 286, 845	67, 975, 279	.....	1, 688, 434
Molasses ..... gallons..	21, 415	15, 288	6, 127	.....
Rice ..... pounds..	2, 288, 400	1, 447, 550	840, 850	.....
Coffee ..... do....	1, 500	3, 864	.....	2, 364
Bananas ..... bunches..	12, 931	13, 402	.....	471
Goat-skins ..... pieces..	3, 247	3, 238	9	.....
Hides ..... do....	7, 572	6, 392	1, 180	.....
Tallow ..... pounds..	.....	15, 885	.....	15, 885
Wool ..... do....	.....	73, 180	.....	73, 180
Betel leaves ..... boxes..	94	130	.....	36
Sheep-skins ..... pieces..	1, 800	3, 110	.....	1, 310
Awa ..... pounds..	1, 936	865	1, 071	.....

Prices of cereals, &c., in Bavaria.—Vice-Consul Hummel, of Munich, under date of April 14, 1887, communicates the following:

Prices of cereals in Bavaria during the twelve months of 1886.

[Per 50 kilograms.]

Months.	Wheat.	Rye.	Barley.	Oats.
January	$2 16	$1 70	$1 70	$1 57
February	2 15	1 72	1 72	1 59
March	2 28	1 77	1 73	1 65
April	2 32	1 74	1 68	1 64
May	2 32	1 70	1 64	1 60
June	2 30	1 70	1 67	1 62
July	2 30	1 69	1 65	1 59
August	2 35	1 67	1 57	
September				
October				

Prices of victuals, &c., in the eight provinces of Bavaria for the year 1886.

Provinces.	Beer, per liter.	Fuel, per stere.		Bread, per ½ kilogram.		Fats, per ½ kilogram.		
		Beech.	Fir.	Brown.	White.	Butter.	Suet.	Lard.
	Cents.			*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Upper Bavaria	5.59	$2 32	$1 78	3.459	8.639	24.09	16.69	19.09
Lower Bavaria	5.59	2 14	1 51	4.089	7.609	24.29	16.69	17.09
Palatinate	6.09	1 43	.....	2.039	3.099	23.79	11.99	16.69
Upper Palatinate	5.59	2 20	1 66	3.459	7.029	23.89	10.59	17.09
Upper Franconia	5.29	2 38	1 62	3.459	7.009	22.29	11.99	18.09
Middle Franconia	5.79	2 40	1 90	3.409	6.029	22.39	11.99	16.29
Lower Franconia	5.79	2 15	1 74	2.089	6.009	23.79	16.09	20.29
Suabia	5.79	2 60	1 69	4.069	7.009	23.89	10.29	16.29

Provinces.	Meat, per ½ kilogram.			Flour, per ½ kilogram.		Potatoes, per 50 kilograms	Milk, per liter.
	Mutton.	Beef.	Pork.	Rye.	Wheat.		
	Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Upper Bavaria	11.99	16.69	16.69	4.29	4.89	65.59	4.49
Lower Bavaria	12.29	15.29	14.59	4.39	6.09	61.09	3.59
Palatinate	11.99	13.19	11.99	2.79	4.89	50.09	4.49
Upper Palatinate	11.99	14.39	14.39	3.59	5.89	.....	3.79
Upper Franconia	12.89	15.29	14.39	3.39	4.89	57.09	4.09
Middle Franconia	13.09	15.29	14.59	4.89	6.39	57.09	4.49
Lower Franconia	12.09	14.39	14.39	3.19	5.29	48.09	4.89
Suabia	13.89	15.79	15.79	3.59	5.49	71.09	4.09

American lard in Italy.—Consul Sartori writes from Leghorn:

A commission has sat and reported on a revision of the Italian tariff list, and, generally speaking, the duties on imports will be largely increased for the purpose of protecting Italian industries and products. Dr. Gardini, the consular agent at Bologna, reports that a strong effort has been made there to have a duty of 20 lire per 100 kilograms ($3.86 per 220 pounds) imposed on American lard. They publish a letter in which it is stated that by a recent analysis American lard contains 12 to 15 per cent. of water, hidden by means of 2 to 3 per cent. of alum and 1 per cent. of *calce caustica*.

Present state of the wool trade.—Consul Williams writes from Rouen, under date April 20, 1887:

The first fifteen days of April have proved favorable to retail dealers in woolen goods, especially those engaged in making up garments, but the activity among the manufacturers has declined; nevertheless the demand for standard goods of plain cloth still continues.

At Fourmies, combed wool and yarn have held their own with difficulty. Numbers 120 and upwards have declined 25 centimes (5 cents) per kilogram since last month. Soft and clinging fabrics are entirely neglected. It is true that the season for merinos is drawing to a close, and that there is an occasional demand, such as takes place every year at this time, which gives a momentary revival to the market.

At Roulaix, Tourcoing, and Rheims, the orders are not sufficient to supply the factories, and have been taken at prices which are not remunerative, owing to the price of raw material.

During the month of last March, Mazamet sent off 59,994 kilograms of cloth, and 708,859 kilograms of worsted goods. During the corresponding month of last year shipments were 64,684 kilograms of cloth and 499,112 kilograms of worsted goods. [illegible] of France in wool and its products, during the two [illegible] months of the preced-

The German trade is quiet, in spite of the strenuous efforts put forth by manufacturers to dispose of their goods. It is estimated that Germany has sent 3,000,000 marks worth of cloth to Turkey.

The outlook of the Polish market is not bright, on account of the weakness of the wool market. Russian manufacturers are in a still worse condition.

The state of the woolen industry of Spain is almost desperate. In the principal centers of manufacture the greater part of the machinery is idle, and there appears to be no prospect of improvement in the near or distant future. Numerous failures have taken place there, and many more must follow.

Exports from Austria-Hungary.—Consul-General Edmund Jussen, under date of April 14, 1887, submits the following statement showing the value of declared exports from the consular districts of Austria-Hungary (agencies included) to the United States of America, during the quarter ending March 31, 1887:

Articles.	Budapesth.	Prague.	Reichenberg.	Trieste.	Vienna.	Total.
Amber, crude					$4,037 99	$4,037 99
Art, works of					6,094 67	6,094 67
Bed-feathers		$3,789 56				3,789 56
Beer		6,583 36				6,583 36
Books and paper	$354 56	5,257 61			3,107 03	8,719 20
Black lead		1,514 19				1,514 19
Buttons		44,084 65	$2,016 69		480,374 06	526,475 40
Carriages					1,032 12	1,032 12
Cloth and woolen goods		36,055 67	1,139 36		18,920 07	56,115 10
Cuttle-bones				$5,118 27		5,118 27
Cutlery		4,359 48				4,359 48
Drugs and chemicals		2,574 46		14,235 59		16,810 05
Embroideries and chenilles		5,786 62			6,185 41	11,972 03
Egg-yolk					494 69	494 69
Fancy goods and jewelry		5,860 53	11,769 95		23,012 62	40,643 10
Fans					71,647 69	71,647 69
Fire-arms					635 58	635 58
Fruits:						
Dried	62,641 09	54,803 32		831,144 14		948,648 55
Marmalade of				1,394 21		1,394 21
Furs	783 50					783 50
Furniture		940 26			9,342 19	10,282 45
Glassware	2,729 00	119,474 07	149,186 47		7,441 55	278,831 09
Gloves		19,350 13			7,933 53	27,283 66
Gum				26,960 46	1,122 32	28,082 78
Hair, human		8,318 75				8,318 75
Hemp tow					3,173 37	3,173 37
Herbs and roots				7,305 10		7,305 10
Hops		42,080 88				42,080 88
Insect powder				99,280 53		99,280 53
Leather and skins	116 98	4,216 24		9,243 69	12,208 67	25,785 58
Linen and cotton goods		4,248 88			167,966 36	172,215 24
Macaroni				604 68		604 68
Majolica	756 94					756 94
Meerschaum, crude					7,930 19	7,930 19
Metal goods			433 90		936 24	1,370 14
Mineral water		19,972 91				19,972 91
Musical instruments		838 80			1,640 81	2,479 61
Oils	62 41			1,933 61		1,996 02
Optical goods	599 98					599 98
Ozokerite and glycerine					7,619 31	7,619 31
Petroleum barrels, empty				17,955 75		17,955 75
Porcelain and pottery		90,249 07	279 54		1,371 84	91,900 45
Railroad rails (old)				27,072 86		27,072 86
Seeds				2,316 24		2,316 24
Silks and velvets		41,419 89			28,733 52	70,153 41
Smokers' articles					23,931 55	23,931 55
Sponges				2,289 17		2,289 17
Stained glass					1,971 93	1,971 93
Tartar, crude	6,952 51				29,867 46	36,819 97
Umbrella fixtures	612 19				3,326 83	3,939 02
White lead				2,365 00		2,365 00
Wines and liquors	14,944 82	358 20			5,991 99	21,295 01
Wood pulp					688 04	688 04
Wool				1,229 47		
Miscellaneous	85 59	1,467 21				

Exports from Frankfort-on-the-Main.—Consul-General Jacob Mueller, under date of March 31, 1887, submits the following statement of exports to the United States from the district of the United States consulate-general at Frankfort-on-the-Main, and the consulates subordinate thereto, during the quarter ended March 31, 1887 (values given in United States gold currency):

Articles.	Aix-la-Chapelle.	Barmen.	Cologne.	Crefeld.	Dusseldorf.
Braids, bindings, and trimmings &c		$277,112 39		$16,760 95	$3,655 00
Books, stationery, photographs, and paper ware	$10,677 72	102,637 49	$5,794 17	1,038 29	8,123 20
Buttons and button stuffs, &c					2,053 72
Caps and cartridges			7,858 90		25,710 20
China, glass, porcelain, stone and earthen ware	219,213 19				4,403 66
Cloth		48,136 13	4,859 37	3,452 33	18,280 78
Cologne water	14,856 00	61,623 83	80,676 16		
Dyes, drugs, chemicals, &c					
Fancy goods and toys	34,166 90				
Glass-plate, window and mirror glass	47,693 91	185,533 23	3,754 80		997,525 69
Gloves			252,830 53		
Hat-bands and ribbons		224,347 74			
Hops			24,463 43		
Iron ware, steel, cutlery, &c	10,773 93			94,384 85	51,639 46
Lead and spelter			18,534 66	561 77	7,069 37
Leather, hides, and skins		171,466 77	4,886 39		
Linen, woolen, and cotton goods	3,868 22	972 42	42,778 75	427 92	3,289 80
Machinery	3,442 57				
Mineral water					
Oil and glass paintings and chromos		12,608 23			36,677 30
Prunes, dried fruits, nuts, land produce, &c	12,993 55		135,150 99	1,200,770 90	
Pins and needles		64,512 74	1,634 32		
Silk, silk goods, velvets, ribbons, and braids, &c			4,436 46	3,875 48	4,802 38
Smokers' articles, snuff, cigars, and tobacco		32,454 81	8,255 07		
Soaps and perfumery	690 40				1,180 42
Sundries			166,014 23	4,350 40	
Steel, manufactured and Bessemer	295,196 08		31,255 80		
Wine, brandy, beer, and liquor					1,163,820 98
Total	653,572 57	1,181,405 78	793,184 03	1,325,622 89	560,962 82
Total for preceding year	370,571 97	1,202,765 49	577,588 08	757,470 33	602,858 16
Increase	283,000 60		215,595 95	568,152 56	
Decrease		21,359 71			

Exports from Frankfort-on-the-Main—Continued.

Articles.	Elberfeld.	Frankfort.	Kehl.	Manheim.	Mayence.
Braids, bindings, and trimmings, &c	$8,681 81				
Brushes and hair pencils		$897 21		$54 74	
Books, stationery, photographs, and paper ware		20,247 65	$24,195 10	3,769 68	
Buttons and button stuffs, &c.	4,953 32	26,380 68			
Clay (for pipes)		4,502 18			
China, glass, porcelain, stone, and earthen ware		553 30	18,359 65	794 68	
Cotton dress goods, velvets, and furnishings					
Cloth		8,479 78		1,714 31	
Downs and feathers		6,545 27			
Dyes, drugs, and chemicals, &c.	79,895 26	214,354 51	30,476 65	177,940 70	$92,771 20
Fancy goods and toys		6,569 22		1,763 58	
Fancy paper		250 14			
Glass-plate, window and mirror glass		11,258 09			
Hatters' fur		56,679 68		15,249 61	
Hat-bands and ribbons	26,215 70				
Hair, prepared and raw		7,394 16	1,444 15		1,119 59
Hares' hair		54,417 69			
Hops		6,630 99	1,935 85		21,268 38
Instruments		4,853 98			
Iron ware, steel, cutlery, &c	180,228 46	13,961 25	1,538 35		
Jewelry and precious stones					
Leather, hides, and skins		73,853 69	46,271 10	1,314 00	57,483 17
Leather goods		3,298 11		94,428 88	28,345 48
Linen, woolen, and cotton goods	104,791 12	11,510 07	80,364 25	1,581 99	1,019 82
Machinery		3,008 04		6,926 00	
Mineral water		10,291 81			
Music, musical strings and instruments		588 16	964 30	99 96	
Optical goods		2,046 39			
Oil and glass paintings and chromos		263 48			1,071 00
Platina wire and platinum		11,982 44			
Prunes, dried fruits, nuts, land produce, &c		140,913 79	135 95	45,531 06	499 32
Seeds, plants, &c		6,287 66			
Silk, silk goods, velvets, ribbons, and braids, &c	169,305 26	875 69	59,926 55		
Smokers' articles, snuff, cigars, and tobacco		3,413 05	2,764 20	1,382 54	636 90
Soaps and perfumery		3,526 48			
Sundries	3,927 45	7,915 04	3,400 00	9,865 57	5,841 29
Steel (manufactured) and Bessemer		1,636 99	79,444 05		
Wine, brandy, beer, and liquor		23,463 64	409 60	49,383 81	147,244 36
Watches, clocks, and watchmen's detectors			409 60	307 50	
Total	577,998 38	748,850 34	352,039 35	412,108 61	357,300 51
Total for preceding year	482,440 62	789,756 35	263,277 75	303,558 52	319,284 63
Increase	95,557 76		88,761 60	108,550 09	38,015 88
Decrease		40,906 01			

Exports from Frankfort-on-the-Main—Continued.

Articles.	Munich.	Nuremberg.	Sonneberg.	Stuttgart.	Total for entire district.
					$288,859 20
Braids, bindings, and trimmings, &c		$60,174 28	$4,866 00		65,040 28
Baskets and basket ware		6,067 81			7,019 76
Brushes and hair pencils		163,296 32			163,296 32
Bronze powder and leaf metal					
Books, stationery, photographs, and paper ware	$12,851 94			$8,303 30	102,600 51
Buttons and button stuffs &c					143,132 98
Caps and cartridges					2,053 72
Clay (for pipes)					4,502 18
China, glass, porcelain, stone, and earthern ware		3,643 78	107,851 47		164,771 98
Cotton dress goods, velvets, and furnishings					1,714 31
Corsets				155,391 78	155,391 78
Cloth					232,096 63
Cologne water					4,859 37
Downs and feathers					6,545 27
Decalcomania		11,295 04			11,295 04
Dyes, drugs, chemicals, &c	1,705 90	15,891 26	8,615 16	204,792 07	991,844 11
Fancy goods and toys		32,633 85	70,596 29		173,186 77
Fancy paper		16,539 57			16,789 71
Glass-plate, window and mirror glass					
Gold, silver, and metal paper	15,151 98	383,265 45			443,940 05
Gas-burners, lava gas-tips, brass lamps					15,151 98
Gloves		6,949 36			
Hatters' fur					6,949 36
Hat bands and ribbons					76,056 36
Hair, prepared and raw	18,169 60		10,192 85		56,679 68
Hares' hair					211,748 93
Hops					9,957 93
Instruments		327,414 20			54,417 69
Iron ware, steel, cutlery, &c	1,953 17	3,280 12	6,476 73	3,959 63	361,004 22
Jewelry and precious stones	1,717 19	7,541 74			10,087 27
Lead and spelter					1,686,167 68
Leather, hides, and skins					62,756 80
Leather goods	1,988 25			310 89	10,773 93
Leonic ware					269,661 72
Linen, woolen, and cotton goods					3,298 11
Lithographic stones and materials		14,373 06			14,373 06
Machinery					
Mineral water					
Music, musical strings and instruments	7,752 91	5,002 85	132,150 94	92,488 36	772,688 05
Optical goods					
Oil and glass paintings and chromos	1,269 78	8,222 90			9,492 68
Platina wire and platinum					27,292 31
Prunes, dried fruits, nuts, land produce, &c					56,513 13
Pins and needles					
Seeds, plants, &c					
Slates and slate pencils, lead pencils			158 27	15,393 61	20,797 96
Silk, silk goods, velvets, ribbons and braids, &c	3,593 66	4,385 39			6,431 78
Smokers' articles, snuff, cigars and tobacco					
Soaps and perfumery					61,942 20
Statuary and sculpture	56,890 00				11,982 44
Sundries				103,584 86	309,736 18
Steel (manufactured) and Bessemer					12,993 55
Wine, brandy, beer and liquor	6,462 97		12,402 52		18,690 18
Watches, clocks, and watchmen's detectors					44,574 68
		37,718 23	6,856 45		1,667,219 43
					11,898 42
			2,067 41		7,962 94
					8,375 32
	8,375 32			10,215 25	109,267 10
	4,122 43	4,983 72	8,918 21		545,224 26
				452 41	271,893 82
	2,932 91		3,435 70		
	2,752 15	7,965 53		953 90	1,671 00
					9,804,672 12
		1,129,644 46	374,588 00	595,846 06	7,216,623 94

Falsification and coloring of French wines.—Consul Roosevelt transmits translations of articles which appeared in the newspapers *La Gironde* and *La Gironde Vinicole*, of Bordeaux, relative to the falsification and coloring of wines:

[From La Gironde of December 23, 1886.]

"*Condemnation of wine merchants, December* 20, 1886.

"Mr. Dufieux, a wine merchant at Romanéche Thorins, has been fined 500 francs and condemned to four days' imprisonment for falsifying wine by the aid of Bordeaux red.

"Mr. Hantz, manager for Widow Thomas, of Béziers, has been condemned to pay 500 francs for falsifying wines and ordered to insert in four newspapers the notice of the seizure and confiscation. The Widow Thomas was declared civilly responsible."

[From La Gironde of March 20, 1887.]

Tribunal Correctional of Bordeaux.—Artificially colored wines.

"On the 21st of January, 1887, Mr. Balade, wine merchant at Bégles, sold by auction, and through the medium of the registrar, wine produced on his estate in 1884 and 1885. Several days after the sale purchasers complained to the tribunal that the wine bought by them had been falsified. An examination was ordered. Mr. Babileé, pharmacist, and Mr. Robineau, expert chemist, proceeded to examine the wines sold and those yet in the possession of Mr. Balade. All were colored by sulfofuchsine. In searching the house of Mr. Balade there were found six barrels of coloring matter and a voluminous correspondence exchanged between him and manufacturers (as many French as foreign) of coloring matter. Piquant details: M. le Commissaire of Bégles proved the transfer of coloring matter from the depot to the residence of Mr. Balade by traces left on the road. Prosecuted by these facts, Mr. Balade was condemned to fifteen months' imprisonment. Yesterday he appealed against the sentence. The tribunal condemned him to ten months' imprisonment, to the posting of the judgment on the door of his residence and wine cellar, and the insertion of the sentence in the newspapers *La Gironde, La Petite-Gironde, Le Bordeaux, La Victoire,* and *Le Nouvelliste,* and ordered the destruction of the wine seized."

[From La Gironde Vinicole of April 1, 1887.

"*Sorrel and the wine merchants.*

"The tribunal correctional of Béziers Herault has just condemned twenty-six wine merchants of Bédarieux to pay fines for falsifying wines and for deception in the merchandise sold. The coloring matter used to give a red color to the alcoholized water sold for wine was sorrel (*Recella tinctoria*)."

It will be seen by the above translations that the French authorities deal rigorously with persons falsifying wines for home consumption, but little, if any, attention is given to wine manufactured for export. Large quantities of Spanish, Italian, and Portugal wines are yearly imported into the department of the Gironde by French wine merchants, who doctor and fortify them in such manner that they are given the color and flavor of genuine Bordeaux, and are placed upon the market as such. The skillful manner in which wines are manufactured and falsified deceive any but a professional wine-taster. If bureaux of analysis were established at such ports of entry as New York, Boston, Philadelphia, New Orleans, and San Francisco, and all wines found containing foreign or noxious matter returned to the country from whence exported, it would compel exporters to ship only pure and wholesome wines to the United States.

In the city of Bordeaux there are one thousand three hundred and seventy-five wine dealers, among which number I can confidently recommend to our public the reliable houses of Barton & Guestier, Nathaniel Johnston & Sons, Cruse fils frères, Boshamer Léon & Cie., Jules Merman & Cie., Dubos frères, Evariste Dupont & Cie., John B. Avérons (Panillac), Eschenauer & Cie., A. Lalande & Cie., Videau fils, Gabriel Sefoupe, F. Robert Schmidt & Cie., Lestapie & Cie., Joseph Cuzol et fils et Cie., H. Toursier & C. L. Bertrin, and J. L. P. Lebèque & Cie. (Contenac).

There is abundant expert testimony to the fact that as good wines [illegible] in California as in France. Last year [illegible] fornia claret, and [illegible]

perience, exceeding care, and technical skill employed, and not, as is claimed by the French, to superior advantages of soil and climate. The wine industry in the United States has, owing to wide latitude, as is evidenced by the pure and agreeable wines produced in Virgina, as well as in California, a brilliant future. In view of this fact, there is no reason to doubt that in time there will be brands of our native wines as famous and as much in demand as those of the most celebrated vineyard of France.

Receipts of the Belgian Government.—Consul John H. Steuart, of Antwerp, writes as follows under date of April 21, 1887:

From official figures just published I have been enabled to extract, and to submit herewith, the following statistics and interesting information regarding the state railway, post-office, telegraph, and marine receipts of the Belgian Government during the years 1885 and 1886, as also during the months of December, 1885 and 1886:

Railways.—The net receipts during the year 1886 amounted to 112,615,238 francs, against 115,748,434 francs the preceding year, showing a decrease for 1886 of 3,133,196 francs, or 2¾ per cent. The great difference between the receipts of 1885 and 1886 is attributable to the International Exposition that was open at Antwerp from May to October, 1885, and drew an immense number of visitors.

When comparisons between the months of December, 1886, and 1885, are made, after the closing of the exposition, a large difference is shown, in proportion, in favor of the year 1886, the receipts having been 10,059,765 francs against 9,444,155 francs in December, 1885, showing an increase for December, 1886, of 615,610 francs, or 6½ per cent.

The receipts, as stated, in the above-named months of December, 1886 and 1885, were derived, according to the nature of the subject or article conveyed, as follows: Passengers, 2,627,857 francs in December, 1886, against 2,565,127 francs during the same month of 1885; baggage, 52,706 francs, against 51,058 francs; parcels and small boxes of merchandise, 708,082 francs, against 747,159 francs; large merchandise, 5,491,855 francs, against 5,074,250 francs; cash or bullion, 21,433 francs, against 20,307 francs; carriages, 2,978 francs, against 5,339 francs; horses and cattle, 97,906 francs, against 92,279 francs, and other products, 1,056,948 francs in December, 1886, against 915,643 francs during the same month of 1885.

The average per day and per kilometer amounted to 103.8 francs in December, 1886, against 96.06 francs in December, 1885.

Post-offices.—The post-office receipts of the state during the year 1886 aggregated 14,800,982 francs, against 14,399,980 francs the preceding year, showing a difference in favor of 1886 of 401,002 francs, or nearly 3 per cent. During the month of December, 1886, the receipts were 1,524,317 francs, against 1,435,265 francs during the corresponding period of the preceding year, showing an increase for 1886 of 89,052 francs, or over 6 per cent.

The following is a synopsis of the business effected for account of third parties: Commercial bills were collected to the amount of 31,336,870 francs in December, 1886, against 28,885,891 francs for the same month of 1885; post-office orders, 8,871,868 francs, against 8,752,816 francs; receipts and acquittances collected, 5,583,912 francs, against 5,055,190 francs; savings-fund receipts, 5,155,580 francs, against 4,464,558 francs; subscriptions to newspapers and journals collected, 1,471,266 francs, against 1,505,882 francs; "bons de poste" collected, 588,496 francs, against 514,780 francs; coupons collected, 49,407 francs, against 48,224 francs in December, 1885.

By the above figures it is shown that there was a general increase for December, 1886, in all branches of post-office business.

Telegraph offices.—The receipts of the telegraph offices aggregated 2,868,546 francs during the year 1886, against 2,774,278 francs the year previous, showing an increase for 1886 of 94,268 francs, or 3¼ per cent.

The net receipts during the month of December, 1886, amounted to 233,716 francs, against 209,107 francs during the same month of the preceding year, showing a difference in for December, 1886, of 24,609 francs, or nearly 12 per cent.

Of the amount thus collected, 108,817 francs was received for 189,538 telegrams destined for the interior of the Kingdom, 92,912 francs for 126,566 telegrams sent to countries, and 19,315 francs for 40,344 telegrams sent in transit through Bel- 1885, the amounts were 99,801 francs, 76,933 francs, and 17,873 to the interior of Belgium, 105,456

passenger service between Ostend and Dover, taxes on pilotage and towage, light-house tax, maritime-police tax, and the ferry receipts across the Scheldt at Antwerp.

During the month of December, 1886, there were received from the above-named sources 300,407 francs, against 289,079 francs during the corresponding period of 1885, showing an increase for 1886 of 11,328 francs, or nearly 4 per cent.

The receipts in December, 1886, from the different sources, compare with the corresponding period of 1885 as follows: From the mail and passenger service between Ostend and Dover were collected 30,378 francs in December, 1886, against 26,488 francs during the corresponding month of 1885. The taxes upon pilotage and towage amounted to 186,148 francs, against 181,670 francs; the light-house taxes to 73,403 francs, against 70,017 francs; the maritime-police taxes to 8,159 francs, against 8,698 francs, and the ferry receipts across the Scheldt at Antwerp to 2,319 francs in December, 1886, against 2,206 francs in December, 1885. It is hereby shown that an increase for 1886 has been marked in every item but one, the maritime-police taxes, where a slight decline for last December is shown.

Argentine harvest of 1887.—Consul E. L. Baker, of Buenos Ayres, writes as follows, under date of March 31, 1887:

From all parts of the Argentine Republic the reports in reference to the crops are of the most promising nature. The harvest is now nearly complete, and it is pronounced by those who are engaged in the grain trade to be, by all odds, the largest and most satisfactory crop that was ever produced in the country. Not only has there this year been a much larger breadth of land put down in cereals, but, owing to the exceptionally fine season and the absence of locusts, it has generally been saved in excellent condition. I was making inquiries in regard to the estimated yield, but I find in the Buenos Ayres Standard of this morning the following article, prepared by Mr. M. G. Mulhall, the well-known statistician, and give it as a very fair exhibit; but I think his figures are rather under than above the general opinion on the subject:

"Although all the crops are not yet gathered, we can arrive at a pretty close estimate of their quantity and value. The total area under tillage in 1884 was 650 square leagues, and is at present about 800 square leagues, that is, five and a quarter million acres, or 1,250,000 cuadras. According to the latest information that we possess, the agricultural area is distributed more or less in the following manner:

Provinces.	Cuadras.		
	Wheat.	Other crops.	Total.
Buenos Ayres	180,000	275,000	455,000
Santa Fé	220,000	190,000	410,000
Mendoza	10,000	80,000	90,000
San Juan	10,000	44,000	54,000
Entre Rios	15,000	45,000	60,000
Tucuman	9,000	33,000	42,000
Cordoba	17,000	15,000	32,000
Various	42,000	68,000	110,000
	503,000	750,000	1,253,000

"The value of the crops in 1884 was estimated at fifty-seven millions of hard dollars, and at present reaches something close on $70,000,000, computed not in depreciated paper money, but in gold, that is, about £14,000,000, as compared with £24,000,000 produced annually by pastoral industry.

"Wheat is a very good crop in the irrigated lands of Mendoza and San Juan, where a cuadra produces 3 tons, say 30 bushels to the acre; but in Buenos Ayres and Santa Fé the yield is less than 1 ton per cuadra. Although the crop this year has been larger than usual, we do not think it will exceed 500,000 tons, or 20,000,000 bushels, and as our consumption averages 3 bushels per inhabitant, we shall have a surplus of 10,000,000 bushels for exportation, worth (at last year's prices in Liverpool) six million hard dollars.

"Maize covers an area of 240,000 cuadras, yielding about 2 tons per cuadra. [illegible] export averages 210,000 tons yearly, and may reach [illegible]

"Tobacco has an area of 3,000 cuadras, and the crop usually approaches 8,000 tons, worth not much over $1,000,000, the province of Corrientes yielding more than half the entire crop.

"Wine, in good years, amounts to close on 6,000,000 gallons, the product of 16,000 cuadras, and its value on the place of vintage reaches $1,500,000.

"Alfalfa, or more correctly alfa, covers an area variously estimated from 360,000 to 400,000 cuadras; the crop averages 2,500,000 tons, worth about $25,000,000. The quantity exported as hay rarely exceeds 15,000 tons per annum, worth $200,000.

"Fruit, vegetables, &c., cannot be estimated with any precision, but cover at least 50,000 cuadras, producing a yearly value of $5,000,000 or upwards.

"Summing up the foregoing crops, we find the gross value produced and the amount exported stand as follows:

Crops.	Total crop.	Export.
Wheat	$12,000,000	$6,000,000
Maize	8,000,000	4,000,000
Linseed	2,000,000	2,000,000
Sugar	3,000,000	----------
Tobacco	1,200,000	----------
Wine	6,000,000	----------
Alfa	25,000,000	200,000
Fruit, &c	5,000,000	----------
Total	62,200,000	12,200,000

"In the above table it must be observed that wheat is put down at the low estimate of twenty-four gold dollars per ton, and the other values are no less moderate. It may therefore be assumed that our crops this year will reach a value little short of $70,000,000. In our Hand-book of 1885 we showed that the capital in tillage in the Republic reaches $230,000,000. The crops, therefore, represent a gross return of 30 per cent on capital. The agricultural (non-pastoral) population comprises between 85,000 and 90,000 families, whose labors represent a product averaging $800 per annum for each family."

A well-known grain broker, who keeps himself well posted and to whom I submitted the foregoing articles, thinks that Mr. Mulhall is much below the actual figures in his estimate of both wheat and maize. He thinks that, after meeting all home requirements, there will be a surplus of quite 15,000,000 of bushels of wheat for exportation, and of fully 500,000 tons of maize or Indian corn. Indeed, he says, from the information he has received, he puts down the maize crop at more than double what it ever was before.

The question whether it will pay, at present rates abroad, to ship the surplus of wheat and maize to European markets, would seem to be settled in the affirmative, from the fact that already several cargoes have gone forward from Rosario, and a large amount of additional tonnage is under grain charter for the English Channel.

The quotations of wheat yesterday in this market were from $3.50 to $.550 paper per 100 kilograms, equal to from $2.50 to $4 gold. The price of Indian corn was $2.80 paper per 108 kilograms, equal to $2 gold; but these prices will soon be lower.

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No. 80.—JUNE, 1887.

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CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

No. 80--JUNE, 1887.

The reports contained in this number have been selected from the annual reports of the consular service prepared for publication in the volumes known as "Commercial Relations." As the edition of these volumes is comparatively small and unequal to the demand, the more important and interesting matters they contain are comprised in this issue of the Consular Reports, and published in advance of the Commercial Relations. As rapidly as new numbers can be made up subsequent issues will be printed, including the more important reports from the rest of Europe, Asia, Mexico, Central America, South America, and Australia.

AUSTRIA-HUNGARY.

Report of Consul-General Jussen on the commerce, industries, &c., of Austria-Hungary.

TRADE REVIVAL.

Although the United States of America and its commercial progress are hardly ever discussed in the Austrian press during the year, they are quite sure of honorable mention when the first day of a new year makes its appearance and when the national economists feel called upon to make up the balance-sheet and to compare the condition of their own people with that of the Western Republic.

For the last six months of 1886 the business of this Empire has materially improved, and although the admission is made somewhat reluctantly, still it is made, and Austrian journalists confess that the first impulse and cause for this improvement arose in the United States, and that the increase of exports from Austria and the consequent benefit to the industries of the Empire were a direct reflexion

WAR CLOUDS.

But in spite of this decided increase of trade, and in spite of the revived hope of manufacturers and exporters, there is a deep-seated want of confidence in future commercial prosperity. If peace could be assured then all might take hope and better times might reasonably be expected; but if the Bulgarian complications should finally culminate in a war with Russia, the injury to Austrian-Hungarian industrial and mercantile interests will be simply incalculable. And in the face of Bismarck's peaceful assurances, careful business men here seem to believe that the clash of arms in the coming spring is unavoidable. The burden of such a war, its sacrifices and misfortunes, will fall heaviest upon Austria. Even if England and Italy should be drawn into the contest, the Austrian-Hungarian monarchy would of necessity carry the greatest weight of the conflict, and whether victorious or not, the result would, at least in an industrial and commercial direction, be equally ruinous.

The theater of action would in all probability soon be transferred from Bulgarian to Austrian soil, and even before the first battle was fought the manufacturers of the country and all those ramifications of business which follow in their train would receive an almost fatal blow. The moment that the army of Austria-Hungary is placed upon a war footing and the reserve is called to arms, the factories and offices and business houses will be depopulated; and if the demand for Austrian manufactures continued it could not be supplied, for the skilled laborer would be handling a musket instead of turning a tool. Only men above forty years of age would be left at home, insufficient in number, strength, and skill to fill the great void created by the war.

The credit of the Austrian importer would certainly suffer to the same extent to which the business of the exporter would be reduced, because the home demand for all imported commodities would suddenly cease, and in all probability collections of outstanding accounts would be more problematical than in times of peace. Add to this the unavoidable necessity of increased taxation for the purpose of paying the expenses of war, the increased costs of the necessaries of life, the sudden embargo which war would impose upon the fine arts and their development and culture, which are important factors in the life of an Austrian, and it would seem as if ample reason for apprehension were apparent, and confidence in industrial and commercial progress and improvement could not well be established until at least a brief peace is absolutely assured and the Oriental question settled, if only for a short series of years, for a final and conclusive settlement without war and its attendant sacrifices seems to be entirely out of the question.

The importation of American manufactures and products into Austria-Hungary is as yet inconsiderable, sole leather, agricultural machines, wheels, spokes, &c., and petroleum comprising the main articles of import. The exporters of these articles have undoubtedly safe and reliable connections, and it is, therefore, probably quite superfluous to suggest that they should study the political horizon and the ever-changing phases of the Oriental question quite as diligently as their market

eral chambers of commerce, recommending them to send young men to foreign centers of trade for the purpose of studying the business, habits, and condition of the people, and to prepare the ground for the establishment of factories and branch houses of Austrian firms. A fund has been started by the Academy of Commerce at Vienna, and thus far 153,000 florins have been collected to defray the traveling expenses of these students of the commerce of foreign lands. It has also been proposed to employ these pioneers of the Austrian export trade as representatives and salesmen of home manufacturing establishments, and thus to insure their support while they devote their time to the study of foreign commercial relations.

As I have already reported, the Export Society of Vienna has during the past year pushed with considerable vigor the establishment of sample depots of Austrian wares in foreign markets, and as a third means of encouraging the export trade a sample depot of foreign manufactures has been started in Vienna for the purpose mainly of informing Austrian manufacturers of the kind, character, price, &c., of goods in demand and used in foreign countries, so that when this depot or museum is complete an Austrian exporter or manufacturer need not travel to foreign climes in order to acquaint himself with the necessities or fashions of the people dwelling there, but can visit the museum, and there be informed minutely as to his chances of success, should he desire to furnish the wares in demand. He will see the kinds of goods required; can estimate their cost of manufacture at his factory to a fraction; and as he can also be informed of the price which they bear in the market in question, it would seem to be a simple mathematical calculation for him to decide whether to make the venture or not.

Aside from this he has other auxiliaries at hand to assist him in his efforts to extend his trade with the greatest possible safety. The Export Society of Vienna is in constant correspondence with merchants and with Austrian consuls in foreign countries, and, as I understand, is ready to impart the very valuable information thus gained to any Austrian merchant who may apply for it.

COMPETITION OF AUSTRIAN WITH AMERICAN EXPORT TRADE.

The export trade of Austria to markets where a competition with American exporters would be encountered is as yet very limited. Few Austrian manufactures find their way to the Central and South American states, or to Havana, China, or Japan, and these are mostly the same articles which Austria exports to the United States, viz: Vienna specialties and novelties, Bohemian and Vienna export beers, Hungarian wines and furniture. And none of these Austrian manufactures, it appears, are shipped directly, but by way of Hamburg and London, and enter the foreign markets under French and English labels, very much to the annoyance of Austrian manufacturers and consuls, who are clamoring for a direct communication. As to the articles of furniture, it is to be hoped the time will come when it will seem absurd and unprofitable to export chairs, bureaus, tables, looking-glasses, bookcases, etagéres, &c., from Austria to the Havana and to the Central and South American states. Whenever we reach the conclusion that a reduction of the tariff on raw materials is a di[illegible] dustrial interests [illegible]

DUTIES ON RAW MATERIALS.

To mention only one or two examples showing the distinction between our tariff and that of Austria on raw materials required in the manufacture of furniture, I will state here that marble, raw and cut in blocks or slabs, is free of duty, and that all kinds of wood, raw or prepared, European or foreign, is also free of duty under the Austrian tariff, except veneers, upon which, if unpolished, a duty of 60 cents per 200 pounds is imposed; whereas, under the tariff of the United States, marble of all kinds in block, rough or squared, pays a duty of 65 cents per cubic foot veined, sawed, or otherwise, and in slabs $1.10 per cubic foot. Cabinet wood, in logs, round, and as unmanufactured timber, not otherwise specified, is free; but black-walnut lumber pays duty as sawed lumber, and all manufactured wood not otherwise specified 20 per cent. ad valorem, and veneer produced by cutting pays 35 per cent. ad valorem.

AMERICAN WINES.

The question whether American wines will displace those of Hungary in the markets mentioned will, I have no doubt, be answered in the affirmative before many years have elapsed. California, Missouri, and Ohio clarets and white wines certainly need not fear competition with the lighter wines of Hungary, and the "Tokayer" brand will probably alone remain an inimitable and unapproachable specialty.

EXPORTS AND IMPORTS OF AUSTRIA-HUNGARY DURING 1886.

The official statistics showing the total of the export and import trade for 1886 has as yet not been published, and, as I know by last year's experience, will not be ready for publication until the end of March. I can therefore give exact figures as to the total amount only for the period from January to September, 1886. To facilitate comparison and to enable parties interested to judge of the fluctuations of trade for a series of years, I give the figures from 1877 to September, 1886.

Years.	Exports.	Imports.	Excess of exports.
	Florins.	*Florins.*	*Florins.*
1877	666, 600, 600	555, 300, 000	111, 300, 000
1878	654, 700, 000	552, 100, 000	102, 600, 000
1879	684, 000, 000	556, 600, 000	127, 400, 000
1880	676, 000, 000	613, 500, 000	62, 500, 000
1881	731, 500, 000	641, 800, 000	89, 700, 000
1882	711, 900, 000	654, 200, 000	127, 700, 000
1883	749, 900, 000	624, 900, 000	125, 000, 000
1884	691, 500, 000	612, 600, 000	78, 900, 000
1885	672, 100, 000	557, 900, 000	114, 200, 000
1886*	526, 700, 000	411, 900, 000	114, 800, 000

* To September.

These figures show that the import reached the highest point in 1882, since then, *i. e.*, up to 1886, it has decreased more that 100,- [illegible] than it was ten years ago, [illegible] 1882

EXPORT.

[1 meter centner = 221⅓ pounds.]

Articles.	Quantity.	Articles.	Quantity.
Barley.....meter centners..	1,830,000	Hides, raw .....meter centners..	27,999
Bed feathers.....do....	23,515	Mineral waters.....do....	141,276
Beer.....do....	319,979	Paper, of straw and wood.....do....	144,639
Brown coal.....do....	32,381,865	Shoes.....do....	14,175
Bark and roots for tanning purposes.....meter centners..	290,461	Sugar .....do....	1,600,000
Eggs ..... do ..	391,310	Wheat .....do....	1,859,000
Fruit, green..... ....do....	604,540	Wine:	
Fats.....do....	67,310	In barrels .....do....	638,598
Felt hats .....do....	1,149	In bottles .....do....	3,956
Furniture, wooden .....do...	82,881	Wood for purposes of manufacture .....meter centners..	5,726,765
Glassware, hollow.....do....	205,521	Woolen clothing .....do....	7,246
Hay.....do....	304,618	Wooden ware.....do....	132,819
Hogs.....do....	339,245		

IMPORT.

Articles.	Quantity.	Articles.	Quantity.
Barley.....meter centners..	134,165	Mineral oils—continued.	
Caoutchouc .....do....	2,259	Refined, duty 10 florins per 100 kilograms .....meter centners..	184,595
Corn .....do....	806,977	Oats .....do....	138,840
Cutlery, fine .....do....	461	Olive oil.....do....	28,535
Distilled spirits .....do....	3,337	Rubber goods .....do....	1,359
Flax .....do....	190,557	Rye .....do....	601,380
Hogs .....do....	309,859	Sheep and goat skins:	
Hard coal .....do....	20,405,255	Dressed .....do....	17,794
Hardware:		Raw ....do....	25,512
Fine.....do....	4,618	Straw hats ....pieces..	237,945
Tools.....do....	8,567	Staves..... meter centners..	34,343
Hides, raw .....do....	101,425	Wool, unwashed .....do....	143,083
Jute.....do....	113,237	Wheat .....do....	189,472
Mineral oils:		Watches:	
Heavy, artificial Russian, duty 1.10 florins per 100 kilograms, meter centners	467,385	Gold and gold-plated ....pieces..	49,739
Light, American crude, duty 2 florins per 100 kilograms..meter centners	159,673	Silver and silver-plated....do....	158,331
		Other watches .....do....	16,243
		Total watches	224,313

The revenue from the import duties of Austria-Hungary from January to October, inclusive, in 1886, amounted in all to the sum of 34,278,902 florins, of which about 14,750,000 were collected in gold. This amount falls short nearly 4,500,000 florins of the duties collected during the same period in 1885.

PETROLEUM.

The figures showing the import of mineral oil from January to October (inclusive), 1886, when compared with those for the same period of 1885 prove quite conclusively that the artificial Russian oil has interfered seriously with the American petroleum trade in this Empire.

During the period in question, in 1885, 344,410 meter centners of light crude American oil were imported against only 159,673 meter centners in 1886.

The figures from 1885 show from January to

ners heavy crude oil were imported, while during the same period in 1886 the figures mount up to 467,385 meter centners.

More conclusive proof could not possibly be furnished that the fraud upon the customs by means of the importation of Russian artificial oil has been completely successful, to the great injury of the treasury of Austria. The loss to Austria in the shape of unpaid duties during the period mentioned, if the decline of the importation of refined oil is taken into consideration, and if, furthermore, the fact is considered, as it should be, that all the Russian artificial oil imported is refined at the Hungarian refineries and pays a so-called consumption tax to Hungary *alone*, amounts, according to my calculation, in round figures to 4,000,000 florins.

No wonder, then, that the Austrian minister of finance has again and again attempted to persuade the Hungarian Government to suppress this much lamented and much criticised fraud and to agree to a strict enforcement of the tariff according to its spirit and intent. But thus far all efforts in this direction have been in vain. Only a few days since a conference of the representatives of the two Governments took place in Vienna, and after a protracted session and animated debate of the question at issue the session was adjourned *sine die*, as far as can be ascertained, without reaching an understanding.

EXPORTS TO THE UNITED STATES.

The increase of the exports from Austria-Hungary to the United States forms one of the few bright leaves in the commercial history of this monarchy for 1886. The schedule herewith inclosed marked Schedule A, contains a statement of the exports from all the consular districts of Austria-Hungary (agencies included) for the year ending December 31, 1886, and shows an increase of exports of $1,152,656.40 over 1885; and the schedule herewith inclosed, marked Schedule B contains a statement of exports from the consular district of Vienna during the four quarters of the year 1886. The value of exports from this consular district to the United States during this year is by far the largest since the establishment of the consulate at Vienna. In connection with the subject of the export trade from Austria to the United States, I desire to mention the results of my experience during the year last past with reference to the

BRANCH HOUSES OF AUSTRIAN MANUFACTURERS ESTABLISHED IN THE UNITED STATES.

I am quite well aware that this is not a new subject, and that American importers are fully cognizant of the injury to their business arising from the fact that European manufacturers establish branch houses in New York, Philadelphia, Boston, &c., to whom they invoice their wares at manufacturer's cost—that is, at a rate below that for which the [illegible] who is required to pay a profit in addition to man- [illegible] in the European mar-

This, undoubtedly, is the correct theory, but like most other theories it is sometimes difficult to carry it into practice. If the goods invoiced are staple articles, there is of course little difficulty in fixing the true market price, but if the invoice contains novelties, articles of luxury, the shape and quality of which change rapidly with the requirements of fashion, a consul will find it somewhat difficult to determine the value of these goods upon and from his own knowledge. Even a consul, educated as a merchant and with the experience of a long series of years in handling and dealing in merchandise, would be at a loss to fix the exact market value of such articles as fine metal or bronze ware, fans, leather goods, oil paintings, painted and decorated fancy glass-ware, terra cotta ornaments, statuary, porcelain, ornamented plaques, and other articles of luxury, all of which contribute in a considerable measure to the sum total of exports to the United States.

In this dilemma he has but one recourse, and that is to call in experts, *i. e.*, exporters and dealers in the articles mentioned, and to ask their opinion as to the value of the goods in question. But I have found, to my regret, that this sort of auxiliary is not absolutely reliable in detecting or proving an undervaluation.

The ramifications and connections created by trade are so intricate and the latter are often of so intimate a nature, that the real truth is not always attainable. Though the name of the shipper is not disclosed by the consul, these experts seem to know from the general shape, character, and appearance of the goods who the manufacturer is, and in most cases there is a certain reluctance to give an opinion even against a competitor in trade. There is a sort of commercial freemasonry extant among these gentlemen, which possibly, in their circle, is as powerful and influential as the *esprit de corps* in the army.

The question arises, If consuls by reason of the facts stated are not in a position to detect and to prove undervaluations, by what means is this purpose to be accomplished? Is there no adequate remedy against the practice by which European manufacturers export their products to their own firms, or to some man of straw (representing their firm in the United States), at mere manufacturer's cost, paying less duty than the honest American importer, and thus fraudulently placing themselves in a position to undersell all their American competitors? Is the experience to be repeated again and again and *ad infinitum*, that Europeans repair to an American port of entry, import their own European manufactures under the conditions mentioned, amass a fortune within a few years, and return to their home laden with wealth acquired in a country toward which they never performed or assumed the smallest duty as citizens, and for whose institutions, progress, and success they never cherished the slightest sympathy? Is it fair and just that these unconscionable cosmopolitans should enrich themselves at the expense of our countrymen and of our national Treasury?

The remedy for this condition of things, which my brief experience seems to suggest, lies with the appraisers and the experts cited by them at the port of entry where the shipments are landed. There is but one class of experts who can give a fair and impartial opinion as to the value of goods purchased in the European markets, and those
can importers, who [illegible]

dents of the United States, representing a European manufacturer, it may well be expected that such experts will consider the cost of manufacture alone a fair criterion of the market price.

As a matter of course there are many shipments as to which the consul can gather satisfactory and reliable information, but when he cannot, then it would seem experts at the port of entry of the character and nationality mentioned could make a fair estimate of value.

EDMUND JUSSEN,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, January 15, 1887.

BELGIUM.

Report of Consul Slade.

COMMERCE.

The total importations and exportations of Belgium (including the transit trade) for 1885 amounted to $964,440,300, or about 8 per cent. less than in 1884. This reduction does not, however, imply a decrease in the general movement of trade, as the price of all merchandise was materially less during the former year. The total importations in 1885 amounted to $497,476,800, or a decrease of 7 per cent. as compared with 1884. The total exportations were $466,963,500, or a decrease of 10 per cent.

The special commerce of Belgium (viz, foreign merchandise consumed in Belgium, added to the products of Belgian soil and industries exported to foreign countries) in 1885 amounted to $491,590,300, or 8 per cent. less than in 1884. The total value of foreign merchandise consumed in Belgium in 1885 amounted to $259,971,000, and in 1884 to $275,160,100, being a difference of about 6 per cent. The total value of Belgian products and industries exported to foreign countries in 1885 was $231,600,000, being 10 per cent. less than in 1884.

Exportations and importations (deducting transit commerce) of Belgium with the different countries for 1885.

Countries.	Importations.	Exportations.	Total.
Europe:			
France	$49, 890, 500	$62, 126, 700	$112, 017, 200
Germany	32, 732, 800	39, 314, 100	72, 046, 900
Holland	37, 943, 800	35, 261, 100	73, 204, 900
England	32, 539, 800	45, 914, 700	88, 454, 500
Russia	17, 968, 300	1, 177, 300	19, 145, 600
Italy, Spain, Austria, &c	15, 169, 800	22, 137, 100	37, 306, 900
Other European countries	9, 418, 400	5, 616, 300	15, 034, 700
	46, 455, 100	14, 668, 000	61, 123, 100
	16, 173, 400	4, 342, 500	20, 115, 900
		1, 042, 200	2, 740, 600

During the first eleven months of 1886 as compared with the same months in 1885, the total importations have decreased 2 per cent., whilst the exportations have increased 1 per cent. The following are the principal articles imported which have increased:

Live cattle	
Butter	
Flour	$1,041,235
Rice	498,905
Meats	403,370
Guano	360,717
Raw silk	556,033
Petroleum	1,807,831
Leaf tobacco	742,049
	2,582,147
	522,450

The following articles have decreased:

Building-material (wood)	
Wood for manufacturing purposes	
Coal	444,286
Wheat	539,821
Rye	546,190
Barley	265,761
Oats and corn	300,887
Linen thread	510,871
Grease	1,100,293
Raw tow	563,753
Hardware and notions	693,449
Copper and nickel	320,380
Raw hides	209,019
Sirup and molasses	610,459
Woolen goods	504,116
Oleaginous grain	257,076
Wine	417,266
	1,443,254
	331,381

Of exportations for first eleven months of 1886, as compared with same months of 1885, the following articles have increased:

Live animals	
Horses and colts	
Candles	$427,109
Meat	615,670
Rags	267,305
Knitting-wool	346,049
Raw tow	415,143
Raw flax	1,849,326
Raw silk	490,413
Hardware and notions	1,732,175
Steel bars and wire	755,209
Manufactures of steel	297,606
Old iron	354,734
Sheet-iron	204,966
Manufactures of iron	258,041
Cast iron	240,864
Raw hides	585,369
Chemical products	129,477
Raw sugar	546,383
Cotton goods	280,622
Common glassware	1,517,366
	316,906
	310,730

During the same period the following articles have decreased:

Coal	
Butter	
Rye	$196,860
Barley	

Copper and nickel	$368,883
Building-stone	521,136
Woolen goods	935,278
Oleaginous grain, (flax-seed, &c.)	281,780
Hops	402,405

COMMERCE OF BELGIUM WITH THE UNITED STATES.

The importations from the United States into Belgium, which in 1884 àmounted to $31,015,100, were reduced in 1885 to $23,237,200, a falling off of 25 per cent. The principal decrease was in the following articles:

Grain of all kinds	$8,982,209
Flour	894,555
Cotton	551,198
Rosin and bitumen	93,026
Raw mineral ore	72,182
Chemical products	68,901
Coffee	51,997
Raw hides	53,075

The following articles increased:

Oleaginous grain (flax-seed, &c.)	$937,298
Leaf tobacco	806,933
Copper and nickel	546,383
Meats	530,943
Lard and grease	399,317
Sirup and molasses	99,009
Art objects	66,199

The exportations from Belgium to the United States, which in 1884 were $7,643,800, fell off to $6,407,600 in 1885, a decrease of 16 per cent. The following articles decreased:

Window-glass	$769,105
Rolled iron and iron bars	228,898
Drugs	208,633
Clothes	144,171
Wooden ware	103,062
Rags	86,464
Tanned and prepared skins	79,323
Arms	76,621

The following articles increased:

Plate-glass and glassware	$137,666
Chemical products	100,939
Hemp and flax	88,008
Woolen goods	61,567
Linen goods	57,900
Machinery and tools	51,917
Colors and dyes	42,846

EXPORTATIONS TO UNITED STATES FOR 1886 FROM THE CONSULAR DISTRICT OF BRUSSELS.

The exportations from this consular district (as per accompanying table) for the year 1886 were $3,124,285.46, being an increase of [illegible] over 1885. The principal articles of exportation were as

COAL MINES.

The principal coal-producing district in the Kingdom is Hainaut (in this consular district). In 1885 the production was 12,925,815 tons (of 2,200 pounds), a decrease of 585,181 tons as compared with 1884. In 1885, 57,662 laborers were employed in the mines, a decrease of 2,359 from 1884. The average selling price per ton of coal during the year 1885, was $1.71, being 14 cents less than in 1884. Since 1853 the price has not been as low as during 1885. The cost of production was $1.63 per ton, a reduction of 15 cents per ton from 1884, being 11 cents on the cost of labor and 4 cents on other expenses. This is the lowest cost price since 1853. The profits of the remunerative mines have decreased (from 1884) $16,103.06, while the deficits of the losing mines have decreased $174,099.34. The estimated profit per ton was $8\frac{1}{3}$ cents in 1885, or $1\frac{1}{2}$ more than in 1884.

Comparative table for the years 1884 *and* 1885.

Items.	1884.	1885.
Laborers:		
In the mines	60, 021	57, 662
On the surface	18, 768	19, 203
Total	78, 789	76, 865
Total wages paid	$14, 859, 041 59	$11, 813, 005 81
Average annual laborer's wages	175 82	153 63
Expenses:		
Ordinary	$22, 285, 660 40	$19, 506 922 11
Extrordinary	1, 819, 161 06	1, 466, 204 21
Total expenses	24, 104, 821 46	20, 973, 126 32
Cost price per ton of coal:		
Wages	$1 02	$0 91
Expenses	76	72
Total	1 78	1 63
Total production	13, 510, 996 tons	12, 925, 815
Total value of product	$23, 927, 999 03	$22, 144, 200 47
Average selling price per ton	$1 85	$1 71
Average profit per ton	$0 06¾	0 08⅓

The following statement shows the number of mines worked and not worked, number of laborers, production, and pecuniary results for 1885.

Number of mines:	
Worked	80
Not worked	45
Pits for ventilation	89
Pits of extraction:	
Worked	187
In reserve	62
In construction	11
Average depth of pits of extraction	1, 762 feet
Average width of coal veins	2
Laborers:	
In mines	57, 662
On the surface	
Total	

Ordinary expenses	$19,506,922 11
Extraordinary expenses	$1,466,204 21
Total	21,073,126 32
Expenses for salaries and laborers	$11,813,005 81
Other expenses	$9,260,120,51
Total production: tons	12,925,815
Quantity	$22,144,200 47
Value	42
Number of paying mines	$1,419,334 35
Profit on same	39
Number of unremunerative mines	$348,260 20
Loss on same	$1,071,074 15
General profit of all mines	

The total number of laborers were subdivided as follows:

In mines:	
Men	45,551
Women	3,995
Boys (under 16 years of age)	6,534
Girls (under 16 years of age)	1,582
Total	57,662
On the surface:	
Men	12,543
Women	2,709
Boys (under 16 years of age)	2,113
Girls (under 16 years of age)	1,838
Total	19,203

The average daily wages for 1885 was as follows (avoiding fractions):

	Cents.
Men	60
Women	32
Boys	27
Girls	21

The following are the annual average wages per laborer for the last ten years:

Years.	Amount.	Years.	Amount.
1876	$199 75	1881	$178 72
1877	160 77	1882	185 28
1878	161 35	1883	194 35
1879	165 36	1884	175 82
1880	176 98	1885	153 63

During the same term of years, fortunately for the laborer, the prices of the necessaries of life have materially diminished. The following table will show the average price of wheat and potatoes, the two staple articles of consumption, since 1850:

Years.	Wheat, 220 pounds.	Potatoes, 220 pounds.	Years.	Wheat, 220 pounds.	Potatoes, 220 pounds.	Years.	Wheat, 220 pounds.	Potatoes, 220 pounds.

STONE AND MARBLE QUARRIES.

Number of quarries in the province of Hainaut (of which 445 are above ground and 88 under ground)	
Number of laborers employed	533
Horses employed	11,280
	714

Value of products.

Marble, stones for ornament, and building-stones	$1,061,242 34
Limestone	864,147 85
Paving-stone	389,477 86
Chalk, silex, clay, and sand	193,861 17
Sulphate of baryte	4,053 00
Phosphate of lime	614,068 10
Total	3,126,850 32

The following table gives the value of the productions of quarries in same province from 1880:

Years.	Value.	Years.	Value.
1880	$3,350,509 91	1883	$4,384,960 00
1881	3,718,689 26	1884	3,392,779 23
1882	4,034,070 56	1885	3,126,850 32

IRON INDUSTRY IN THE PROVINCE OF HAINAUT FOR 1885.

Establishments:	
Working	8
Shut down	8
Smelting furnaces:	
Working	14
Shut down	21
Steam machinery:	
Number	165
Horse-power	5,858
Laborers employed	1,341

Consumption.

	Tons (2,200 pounds).
Belgian mineral ore	26,900
Foreign mineral ore	766,410
Scoriæ	198,700
Fondant	102,970
Coke	398,810
Coal	5,669

Production.

Pig iron for rolling-mill purposes	348,520
Pig iron for foundries	7,960
Total	356,480

Comparative production and value from 1880 *to* 1885, *inclusive.*

Years.	Active smelting furnaces.	For rolling-mill purposes.		For foundry purposes.		Total product.	Average value per ton.
		Production.	Value per ton.	Production.	Value per ton.		
		Tons.		*Tons.*		*Tons.*	
1880	20	311,140	$11 04	36,695	$13 80	347,835	$11 34
1881	19	316,783	10 13	40,171	13 32	356,954	10 49
1882	20	362,088	10 39	40,050	14 00	402,138	10 75
1883	19	400,473	9 98	24,400	13 95	424,873	10 22
1884	18	381,000	8 65	13,300	13 06	394,300	8 99
1885	14	348,520	8 16	7,960	10 77	356,480	8 26

It will be seen by the following table how the depression in smelting furnaces has been accentuated since 1852:

Years.	Number of furnaces.	Product.	Value.	Value per ton.	Mineral employed.	Fuel.	Number of laborers.
		Tons.			*Tons.*	*Tons.*	
1852	18	85,210	$1,234,665 20	$14 50	256,183	116,689	1,310
1853	23	118,873	2,370,428 44	19 94	369,062	174,855	2,108
1854	28	148,063	3,440,302 20	23 22	487,960	231,352	2,204
1855	28	145,428	3,431,437 87	23 18	454,548	223,682	2,205
1856	29	158,032	3,476,080 54	22 00	493,425	240,455	2,237
1857	26	145,783	2,857,265 60	19 60	425,996	216,023	2,187
1858	26	163,916	2,945,436 11	17 97	488,759	241,322	2,419
1859	27	163,926	2,747,458 83	16 76	469,720	237,857	2,270
1860	25	183,910	2,976,027 19	16 18	507,250	242,600	2,282
1861	26	188,100	2,934,944 63	15 60	520,950	241,790	2,253
1862	25	208,750	3,279,856 85	15 61	581,511	262,840	2,443
1863	25	229,208	3,482,549 90	15 19	637,170	284,330	2,372
1864	27	268,960	4,137,562 60	15 42	742,600	327,700	2,783
1865	31	287,380	4,415,292 40	15 38	819,600	364,160	2,928
1866	31	313,400	4,948,845 50	15 82	852,200	375,300	2,998
1867	25	273,700	4,068,175 00	14 79	773,700	339,450	2,369
1868	24	287,735	3,924,998 54	13 64	816,650	350,236	2,387
1869	28	349,397	4,773,337 76	13 65	960,755	419,631	2,633
1870	28	357,758	5,017,289 00	14 02	1,000,775	453,892	2,648
1871	30	394,890	5,655,455 84	14 32	----------	503,400	2,623
1872	33	435,490	8,039,422 72	18 46	----------	572,700	3,042
1873	34	392,160	9,263,578 50	23 36	----------	517,530	3,060
1874	24	336,600	5,577,600 00	16 57	----------	410,210	2,458
1875	25	293,114	4,124,796 00	14 07	----------	367,070	2,020
1876	15	236,723	2,888,250 79	12 20	----------	279,660	1,640
1877	15	239,330	2,641,872 78	11 04	----------	281,800	1,418
1878	15	265,357	2,676,697 70	10 18	----------	304,900	1,426
1879	14	224,832	2,243,931 90	10 98	----------	258,450	1,417
1880	20	347,835	3,945,969 92	11 34	----------	371,260	1,820
1881	19	356,954	3,744,325 45	10 49	859,084	399,775	1,966
1882	20	402,138	4,322,235 00	10 75	996,973	455,780	2,043
1883	19	424,873	4,343,619 40	10 22	1,002,006	495,596	2,013
1884	18	394,300	3,468,403 00	8 80	864,350	442,005	1,600
1885	14	356,480	2,946,202 90	8 26	793,310	398,810	1,341

ROLLING-MILLS.

	24
	8
	8,389

Production.

	Tons (2,200 pounds).
Heavy iron for smiths	108,234
Light iron for smiths	56,189
Special iron	71,503
Rails	6,685
Split iron and bars	41,576
Heavy sheet-iron	35,530
Light sheet-iron	400
Total	320,117
Total value	$7,388,658 76

The following table presents the total production of the rolling mills in the province of Hainaut, and the value thereof; also, the production and value of iron rails from 1869 to 1885, inclusive:

Years.	Total production.	Total value.	Production of iron rails.	Value of iron rails.	Average price per ton of rails.
	Tons.		*Tons.*		
1869	293,300	$9,525,814 50	105,300	$3,326,239 20	$31 59
1870	305,900	10,431,514 90	130,600	4,273,541 10	32 73
1871	265,000	9,259,769 60	85,000	2,773,176 40	32 61
1872	291,100	13,779,485 90	59,800	2,728,691 90	45 63
1873	268,400	14,954,431 30	71,300	3,478,632 00	48 77
1874	284,400	12,682,300 20	87,700	2,376,647 40	42 73
1875	250,400	9,761,862 80	48,500	1,819,767 70	39 22
1876	234,600	7,933,290 10	37,600	1,288,255 70	34 26
1877	234,300	6,999,531 00	22,500	710,478 30	27 16
1878	258,600	7,103,500 00	28,600	757,312 70	26 47
1879	249,600	6,473,548 10	11,600	282,802 90	24 38
1880	304,800	9,367,505 90	36,000	1,116,041 80	31 05
1881	307,700	9,026,161 10	24,000	706,437 90	29 43
1882	343,800	10,341,190 90	17,600	536,308 40	30 45
1883	326,300	9,346,468 90	10,900	299,902 70	27 61
1884	314,400	8,050,840 60	7,200	178,380 25	24 95
1885	320,100	7,388,658 76	6,700	164,739 00	24 65

OTHER IRON WORKS, 1885.

Number of establishments:		
Working		17
Shut down		5
Number of workmen		208
Consumption of coal	tons	6,324
Production of manufactures of iron	do	2,452
Total value of product		$121,083

STEEL WORKS, 1885.

Bessemer works:		
Working		1
Shut down		1
Workmen employed		174
Average daily wages		$0 67
Total consumption of coal	tons	8,190
Consumption of iron:		
Belgian pig-iron	tons	22,805
Foreign pig-iron		
Steel scrap and shavings		
Total product		

Production.

Products.	Quantity.	Value.	Value per ton.
	Tons.		
Rails	4,868	$108,045 26	$22 19
Rolled steel	1,181	31,847 51	26 97
Other steel	9,463	182,635 90	19 30
Steel wire	4,393	114,459 61	26 05
Total	19,905	436,988 28	
Average			21 95

WINDOW-GLASS AND GLASSWARE WORKS, PROVINCE OF HAINAUT, 1885.

Establishments:		
Working		59
Shut down		7
Melting furnaces:		
Working		160
Not working		75
Pots:		
Working		1,163
Not working		504
Flattening-furnaces:		
Working		182
Not working		59
Laborers employed		8,322
Consumption of coal	tons	584,721

Production.

Window-glass	29 meters	22,448,000
Value		$6,884,782 30
Bottles	number	4,510,000
Value		$89,938 00
Other glassware	value	$290,098 30

PLATE-GLASS WORKS.

Establishments, working		3
Melting furnaces:		
Working		6
Not working		3
Pots:		
Working		80
Not working		28
Flattening furnaces		98
Laborers employed		1,440
Consumption of coal	tons	58,756

Production.

Plate-glass	29 meters	286,000
		$935,034

General recapitulation of the value of the production of mines, quarries, and industries in the province of Hainaut from 1876 *to* 1885 *inclusive.*

Years.	Coal mines.	Quarries.	Iron and steel works.	Glass-works.	Total.
1876	$28, 017, 987 97	$3, 793, 639 27	$12, 548, 349 13	$6, 394, 669 00	$50, 754, 645 37
1877	22, 093, 695 07	3, 782, 178 54	11, 280, 516 88	5, 975, 473 00	43, 131, 863 49
1878	21, 585, 348 13	3, 522, 628 28	11, 187, 758 38	5, 653, 298 10	41, 949, 032 89
1879	21, 077, 161 56	3, 183, 956 70	10, 194, 723 39	5, 284, 050 50	39, 739, 892 15
1880	24, 581, 163 22	3, 350, 509 91	14, 374, 724 36	6, 060, 933 40	48, 747, 330 89
1881	23, 729, 890 59	3, 718, 689 26	13, 171, 257 98	6, 333, 449 40	46, 953, 287 23
1882	25, 630, 130 76	4, 034, 070 56	15, 064, 643 18	7, 729, 843 00	52, 458, 687 50
1883	26, 731, 189 97	4, 384, 960 96	14, 008, 463 03	8, 291, 666 00	53, 416, 279 96
1884	25, 017, 999 03	3, 392, 200 23	11, 877, 317 08	7, 768, 143 85	48, 055, 660 19
1885	22, 144, 200 47	3, 126, 850 32	10, 892, 933 13	7, 217, 852 60	43, 381, 836 52
Total	240, 608, 766 77	36, 289, 684 03	124, 980, 686 54	66, 709, 378 85	468, 588, 516 19

CONSULATE OF THE UNITED STATES,
Brussels, January 14, 1887.

WILLIAM SLADE,
Consul.

FRANCE.

Report of Commercial Agent Coleman.

The great local industry of St. Etienne is the ribbon industry, almost as important as all the rest combined. This industry, introduced into St. Etienne in the tenth century, was for a long time inferior to that of St. Chamond, where at present, however, are made only special articles, such as braids, for example. It is at St. Etienne exclusively that has existed for forty years the public test for silk destined to be manufactured into ribbons. The manufacture of velvets and ribbons absorbs annually from 5,000 to 6,000 kilograms, about 10,000 or 12,000 pounds of silk, representing from 30,000,000 to 35,000,000 francs, or about $7,000,000. The value of ribbons manufactured is from 70,000,000 to 80,000,000 francs, or $16,000,000. The "rubanerie" or ribbon industry of St. Etienne is carried on by about 250 manufacturers, who are engaged in making many different articles such as plain black, colored, and figured ribbons, velvets, elastic goods, trimmings, braids, cravats, cords, galoons, &c. These manufacturers employ 18,000 looms and 50,000 workmen. The greater part of the looms of St. Etienne are worked by hand and belong to the workmen themselves, who own small factories of from 2 to 4 looms. Generally these looms are very well arranged and perform wonders. The manufacturers of St. Etienne, in view of the constant changes in style, find a great advantage in this arrangement, which, however, seems little in keeping with our age. A manufacturer who creates a new article finds looms to produce it at smaller cost than if he had extensive works and were obliged to change all his machinery. Looms for velvet generally belong to the manufacturer, as well as those for the fabrication of elastic
It is estimated that t

man with a loom able to produce the article in vogue will gain from 10 to 20 francs—about $2 to $4 per day—another with a loom producing a less stylish fabric will make but 2 or 3 francs—say from 40 to 60 cents per day. Till the year 1872 work was regular enough at St. Etienne. Economical workmen grew rich, and most of the houses in the city were built by them. Since then the condition of workmen has been less favorable, wages have been smaller, and many have been out of employment. The manufacturer, too, has suffered, and now that business has revived it is hard to find the skilled labor which is needed. The ribbon production of St. Etienne formerly amounted to 110,000,000 francs ($25,000,000) yearly; this included braids also, which are now principally manufactured at St. Chamond. To-day the combined production of St. Etienne and St. Chamond is estimated at not above 90,000,000 francs—say $18,000,000 yearly. Till the year 1872 two-thirds of the ribbons manufactured were for exportation. To-day those destined for exportation do not exceed one-third. It is alleged by the manufacturers that this great change is due to the policy of the United States in imposing such an enormous tariff upon their productions. It is stated by the president of the chamber of commerce that the exportation of ribbons to the United States formerly ran as high as 25,000,000 or 30,000,000 francs. If this be true, there is certainly a very great change from the past to the present figures.

From publications made by the "chamber of textiles," an approximate estimate has been made of the total ribbon production of St. Etienne for the years 1881, 1882, 1883. A table is hereto annexed and made a part of this report. This table shows that, unfortunate as was the year 1881 for the ribbon department, still the total valuation of the ribbon production for that year was 63,400,000 francs. This was 4,210,000 francs more than the production of 1882. I cannot give more accurately than I have the ribbon production of St. Etienne for the years 1884 and 1885. The only official figures for these years must be taken from the declared export tables from this consular district to the United States. From the table given below it will be seen that the total ribbon exportation to the United States for 1884 was $576,243.02, and for 1885 was $498,323.57, the decrease for 1885 being $77,919.45. The total exportation of ribbons to the United States for the year 1886 is $793,271.60, showing an increase of $294,948.03 over the year 1885. Thus it will be seen that there is a very decided improvement this year in the ribbon exports to the United States.

Articles.	1882.	1883.	1884.	1885.	1886.
Silk ribbons	$675,735 25	$307,109 02	$215,556 50	$316,965 51	$541,609 32
Velvet ribbons	105,182 05	771,160 34	282,517 47	113,341 64	157,511 68
Elastic ribbons	1,797 78	1,678 99	3,656 09	4,802 23	3,471 74
Cravats	13,143 40	2,758 50			
Trimmings, &c	61,868 90	102,512 20	84,512 96	63,214 29	90,678 85
	857,727 38	1,185,218 75	576,243 02	498,323 57	793,271 60

iron trade in 1882 proved to be, on the whole, unusually steady, the quotations throughout the year being nearly the same. Prices for merchant iron in the Paris market ranged from 21 to 19 francs per 100 kilograms, and although a considerable competition by foreign producers began to make itself seriously felt during the latter part of the year, the market continued remarkably firm to the end of the year. Building operations in Paris being very active during this year, transactions in every description of iron—bars, plates, slit iron, angles, hoops, &c.—remained numerous and fairly remunerative. In the beginning of 1882 many orders taken in 1881 remained to be filled, and the great activity which prevailed in the construction of public works and in the carrying through of the so-called Freycinet schemes caused many new ones. To satisfy the demand thus created numerous plants were erected or brought near completion during this year, among which may be mentioned several converters intended for the production of steel by the dephosphorizing process, in addition to the five already in operation in France. As to novelties in the manufacturing of iron the year 1882 has no more showing than its predecessor. It is perhaps of interest to mention that a discovery of iron ore has been made at Heywien, in the department of the Isère, belonging to this consular district, by a company searching for coal-measures. They met, instead, with a large bed of hematite iron of about 5 meters' thickness. This discovery will no doubt prove in the end an important accession to the metallurgy of the Loire district. The total output of French metallurgy in 1882 was 3,570,296 tons against 3,070,036 tons in 1881, showing an increase of 500,260 tons. The district of the Loire had its due share in that increase, although I am unable to state in exact figures the percentage of its increase.

But favorable as 1882 proved to be for the French metallurgist, an ominous symptom, indicating even worse consequences in store for the future, showed itself at the end of that year. On the 7th of May, 1882, one year after the promulgation of the revised French general tariff, the new treaties and connections with the different European powers had come into operation. As the duties on articles of the metallurgic line had been reduced, the importation of materials, especially those needed for railroad building, such as axles and tires, naturally increased. The result was that after a seven months' trial of the new legislation the balance of trade was, at the close of 1882, already in favor of foreign producers, thus proving that the new commercial treaties did not work well as far as the interests of French metallurgy were concerned. Still, it was hoped that the completion of the important public improvements would be steadily carried on by the Government, so as to secure at least a modest number of orders to the French metallurgist. The new year of 1883, therefore, brought expectations not over sanguine, it is true, as all hope for a continuance of the great commercial revival of 1879 had been long abandoned, yet presaged no gloomy prospects for the future. But in the course of events 1883 proved a most deplorable year for all concerned in metallurgy. Financial embarrassments consequent upon the foreign policy of the French Government caused the [illegible] public works to curtail or postp[illegible] crisis of 1882.

by the state. Being under the apprehension that a repurchase of their roads by the state—provided in the different charters and warmly advocated by influential political parties—might be carried, they proceeded to apply for a revision of the old charters. In the mean time they restricted their orders to their most pressing needs, prudently conforming themselves to the marked decline in their receipts.

Besides this, the crisis, already bad enough, was aggravated by the competition of the large metallurgical establishments which had been erected at St. Nazaire, at Bayonne, and in other parts of the country. The new plants had raised the producing capacity of French metallurgy to 600,000 tons per year, while the home consumption did not exceed 250,000 or 300,000, leaving thereby on the hands of the manufacturer a surplus of at least 300,000 tons, which could not be sent abroad, save at prices almost ruinous. Thus was exportation, which means successful competition with England, Belgium, and Germany, rendered impossible. Under such circumstances, it is not to be wondered at that stocks accumulated and prices, from the beginning of 1883 to the close of the same year, went gradually but steadily down. Merchant iron, bars, plates, &c., decreased from 195 francs in January to 160 in December in the Paris markets. Bessemer steel rails were, in December, worth 160 francs, while in the flush times, before the crisis, 180 was the minimum price, and the cost price in the Loire district exceeded 160 francs. Hence further manufacturing of this article became impossible. To sum up, the year 1883 was characterized by overproduction and low prices, such as generally did not pay the producer, and feverish and uncertain trade. Furnaces had to be put out of blast in the north and Moselle region, as well as in the Loire district, and mills had to be stopped in order to check overproduce. Many workmen were dismissed, wages were reduced, and, as a matter of course, strikes followed, and up to the end of the year the crisis remained in full force. The total production of French metallurgy, foundry-iron, forge-iron, and steel included, amounted to—

	Tons.
1881	3,070,036
1882	3,570,296
1883	3,524,500
1884	2,759,318

showing at the end of 1882 an increase of 500,260, and at the close of 1883 a decrease of 45,796 tons, leaving to the year 1883 an excess of production over 1881 of 454,464 tons.

The following figures show to what degree the metallurgical portion of this district—the departments of the Loire and the Isère—took part in the general production. Participating with 299,949 tons in a total production of 3,524,500, the two departments represented in 1883 about 8½ per cent. of the general output, while in 1881 they shared in it with a little more than 10 per cent. It may not be amiss to add that some

Production of iron and steel in the departments of the Loire and Isère; also the production for France entire during the year 1884.

Description.	Production of iron.			Production of steel.		
	Isère.	Loire.	Total France.	Isère.	Loire.	Total France.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Rails	.....	.....	15, 668	.....	19, 033	376, 924
Merchant and special iron	7, 436	41, 046	734, 113	4, 709	35, 689	103, 096
Sheet-iron	291	14, 008	126, 970	.....	12, 419	31, 888
Total	7, 727	55, 054	876, 751	4, 709	67, 141	502, 908

MANUFACTURE OF ARMS.

Closely connected with this branch of industry (metallurgical) is the manufacture of arms, which has its seat at St. Etienne and its environs. The most important establishment engaged in the fabrication of weapons of every description for the army, the so-called "National Factory" has, during the years 1882, 1883, 1884, and 1885, continuously pursued a downward course. As far as I can learn, from private sources, official statements regarding this Government institution have at no time been published, but, on the contrary, have been guarded with strictest secrecy. I have made several attempts to obtain information, especially at St. Chamond, but every effort to visit the works or to obtain information has been unavailing. As far as I can ascertain, the number of hands employed in the national factory at this place for the last three or four years, say 1883, 1884, and 1885, have not averaged more than 1,500 or 2,000, while at the end of 1881 there was still a working force of about 4,000 men. It is not surprising, then, that with the gradually diminishing demand for work during this period wages went down to an almost starving rate, the wages of ordinary laborers being one franc or one franc and a half, say 30 or 40 cents, a day, and those of skilled workmen not more than two or two and a half francs, say 50 cents, per day.

It is rumored lately, however, that something like a revival of its former activity will soon spring up, as the army gun now in use is to pass through a process of remodeling; that work will doubtlessly be done by the national factories, among which that of St. Etienne is the most important.

What has been said of the Government factories of arms and the distressing condition of their employés, applies with equal force to the private branches of this industry. From the very fact that this branch has for its exclusive specialty the fabrication of "arms of luxury," it is to be inferred that it must have suffered, even more than many other branches, from the financial crisis and the consequent industrial stagnation of the last few years. Although I have not been able to obtain statistics giving the exact or even the approximate estimate of the number of arms produced here, I feel sure that the St. Etienne manufacture of fancy arms, from information I have gained, is losing ground from year to year, and is becoming less and

industry, 1882 and 1883, was about half a million of tons larger than in 1881, in consequence of which the demand for the universal fuel increased proportionably. A statistical table published in the *Écho des Mines*, by Mr. F. Laur, gives the quantity of coal mined in the Loire region as amounting to 3,620,550 tons for 1882, and to 3,651,860 tons for 1883. It may be said, therefore, that, as to the quantity of coal mined, these years cannot be accounted unsuccessful, yet the general calamity brought on by the financial and industrial crisis in metallurgy had a damaging effect upon mining interests, resulting in the retrenchment of wages of employés. The following table shows the production of coal in this consular district for the year 1884:

Consular district.	Tons.	Value.
Department of the Loire	3,152,184	$9,573,428 00
Department of Isère	158,494	31,69 0 80

The following will show the production of coal in the department of the Loire for the respective years:

	Tons.
1881	3,479,356
1882	3,568,909
1883	3,586,802
1884	3,152,184

The decrease for the year 1884 from 1883 being 499,676 tons.

The following translation of an extract from the *Écho des Mines* by Mr. F. Laur, engineer of mines, is interesting for the information contained in it on the subject of mines and metallurgy.

Output of coal from the basin of the Loire in 1883.

[Result of semi-annual reports of our five principal companies in 1883.]

	Tons.
Firminy and Roche-la-Molière	585,444
Montrambert-Beraudière and Montcel	591,675
Loire	460,998
Mines of St. Etienne	577,110
Rive-de-Gier companies	204,932
Total output from the basin of St. Etienne	3,110,910
Rive-de-Gier	488,143
Total	3,599,053
The total output had been St. Etienne	3,055,718
Rive-de-Gier	513,191
Total	3,568,909

The output, then, of 1883 exceeded that of 1882 by about 30,000 tons. The *Écho* gives the production of the two basins of the Nord and of the Pas-de-Calais, making together 10,051,459 tons.

On the metallurgic production of the Loire we have interesting fig- [illegible] official statistics we could not get so much in six months. [illegible] with that of 1882, is the

As can be seen, there is a decrease of 25,000 tons in the manufactured article, iron and steel about 10 per cent. If the ore has suffered a diminution of only 4,000 tons, it is because there must have been introduced into the department foreign ore, which is again a bad symptom.

THE METALLURGICAL PRODUCTION IN AMERICA.

The condition of metallurgy in America is analogous to that in Europe. In 1883, if the production was not diminished, the prices, on the other hand, were sensibly lowered. Many owners of foundries put out their fires because the future promised no more remunerative prices. The year 1883 produced, in round numbers, 4,948,000 tons of ore; in 1882, the yield had been 4,623,000, say an increase of 325,000 tons. The production of steel rails in 1883 was inferior, by 100,000 tons, to that of the preceding year. To sum up, it is to be seen that our neighbors, the American iron-men, cannot congratulate themselves more than their European brethren on the results of 1883. On the other side of the Atlantic they allege excess of production as the principal cause of this state of things. It is the same on this side. Metallurgy realizes, to some extent, Pharaoh's dream of seven fat kine always followed by seven lean kine; the number seven varies, but the succession of the kine remains invariable.

For any information about the glove business of Grenoble, the lace industry of Le Puy, the cotton goods of Terare, the "Chartreuse" of Voiron, and the glass manufactories of St. Just, I have to rely exclusively on the table of declared exports, herewith inclosed, being left absolutely without any other statistical information.

DANIEL COLEMAN,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
St. Etienne, January 1, 1887.

A.—*Total ribbon production of St. Etienne during the years* 1881, 1882, 1883.

Products.	1881.	1882.	1883.
	Francs.	*Francs.*	*Francs.*
Pure silk, black	.....	10, 000, 000	9, 000, 000
Pure velvet, one color	.....	15, 000, 000	16, 000, 000
Pure silk, figured	30, 300, 000	3, 600, 000	1, 600, 000
Silk and cotton mixed:			
Black	.....	2, 130, 000	2, 550, 000
One color	.....	5, 200, 000	10, 200, 000
Figured	12, 200, 000	3, 000, 000	2, 500, 000
Velvet:			
Pure silk	200, 000	200, 000	1, 000, 000
Silk and cotton mixed	2, 400, 000	4, 000, 000	15, 000, 000
Cravats:			
Pure silk	2, 600, 000	1, 350, 000	1, 000, 000
Silk and cotton mixed	1, 700, 000	3, 000, 000	1, 600, 000
Trimmings, braids, fringes, &c	5, 000, 000	2, 330, 000	700, 000
Hat ribbons	4, 000, 000	3, 400, 000	3, 500, 000
Elastic ribbons	5, 000, 000	5, 000, 000	

GERMANY.

Report of Consul-General Raine, of Berlin.

The universal complaint of German trade and industry in 1885 was caused less by stagnation and decline of business than by low and unprofitable prices. It will appear from the subjoined comparative table that the commercial balance against Germany in 1885 was higher by about $14,000,000 than in 1884, while the year 1883, showing the largest amount of exports, closed with an excess of about $3,000,000 exports over imports. Official returns give the following figures of Germany's special commerce (exclusive of goods in transit) in the last fourteen years:

Years.	Imported.	Exported.
1872	$825,498,000	$586,574,000
1873	1,013,666,000	592,620,000
1874	874,174,000	599,046,000
1875	851,295,000	605,820,000
1876	931,365,000	606,750,000
1877	947,240,000	657,451,000
1878	885,995,000	640,220,000
1879	$926,534,000	$671,160,000
1880	913,920,000	723,520,000
1881	871,080,000	709,240,000
1882	744,940,000	759,220,000
1883	775,880,000	778,260,000
1884	781,830,000	778,022,000
1885	711,620,000	693,770,000

GERMANY'S INDUSTRIAL PROGRESS DURING THE LATTER HALF OF THE CENTURY.

A comparison of the state of industry twenty-five years ago with that of the present time is quite instructive. Taking standard conditions as 100, the upward tendency will be seen by the figures, put in juxtaposition, for the latest years reported:

	Standard conditions and proportionate increase.
Population	100 in 1860 : 124.1 in 1885
Output of coal	100 in 1861 : 617.1 in 1885
Pig-iron produced	100 in 1861 : 602.3 in 1884-'85
Sugar produced	100 in 1871–72 : 152.8 in 1884-'85
Beer produced	100 in 1872 : 131.2 in 1884
Total imports for home consumption	100 in 1872 : 190.7 in 1884
Exports	100 in 1872 : 214.3 in 1883
Length of railroads	100 in 1868 : 167.9 in 1883
Number of post-offices	100 in 1874 : 225.4 in 1883
Number of telegraph offices	100 in 1874 : 370.0 in 1884
Goods traffic on large rivers and canals	100 in 1860 : 181.0 in 1884
Sea trade in German ports	100 in 1874 : 155.6 in 1884
Pig-iron consumed	100 in 1872 : 177.5 in 1884
Coal consumed	100 in 1872 : 141.8 in 1884
Petroleum consumed	100 in 1866 : 346.6 in 1884
Cotton consumed	100 in 1866 : 3276.7 in 1884
Jute consumed	100 in 1872 : 624,0 in 1884

...t be granted

Another cause consisted in the unfavorable economical condition of France, England, the United States, and of large portions of South America; while Russia's almost prohibitive rates of duty did not foster the importation of German articles. But the principal cause of the decrease of imports by 316.4 million marks ($75,400,000) and of exports by 344.7 millions ($82,000,000) in value during the year 1885 as against 1884 must be ascribed to the steady decline of prices both of raw material and manufactured articles.

A.—*Average wholesale prices of chief articles in the German Empire during the years* 1880–1885 *and in the month of August,* 1886.

Articles, measures, and names of market.	1880.	1881.	1882.	1883.	1884.	1885.	August, 1886.
Wheat (per 1000 kilograms = 22 cwt.):							
Berlin, good quality	$51.8	$52.2	$48.5	$44.3	$38.5	$38.3	$37.24
Dantzic (province of West Prussia)	49.9	50.1	46.7	43.4	37.4	34.1	33.45
Cologne-on-the-Rhine	55.7	56.3	54.0	48.5	42.8	41.3	40.34
Lindau (Bavaria)	62.1	61.5	57.5	54.2	49.9	46.6	49.20
Rye (per 1,000 kilograms = 22 cwt.):							
Berlin, good quality	44.7	46.4	36.2	34.4	34.1	33.4	30.59
Dantzic	43.1	44.8	33.6	32.4	33.0	31.2	27.84
Cologne	48.6	51.8	42.4	37.3	36.4	35.9	33.76
Lindau (Hungarian rye)	50.3	52.3	45.7	42.5	43.5	42.3	39.86
Barley (per 1,000 kilograms = 22 cwt.):							
Dantzic	37.0	36.2	31.3	31.5	32.9	31.5	28.09
Lindau	50.4	50.7	46.5	44.5	45.3	42.5	41.41
Magdeburg	46.2	44.6	43.1	39.5	41.9	37.9	35.12
Munich	45.3	45.5	44.4	40.5	42.3	38.6	38.67
Oats (per 1,000 kilograms = 22 cwt.):							
Berlin	35.2	35.8	31.5	30.5	31.2	31.9	29.11
Dantzic	35.3	37.4	29.9	30.2	31.3	31.3	29.50
Cologne	36.3	39.5	37.0	34.7	34.3	33.9	32.87
Lindau	36.7	37.8	39.3	32.4	35.7	35.7	35.10
Potato-spirits (per 10,000 liter = 2,200 gallons):							
Berlin	14.4	13.0	11.6	12.7	11.3	9.9	9.2
Mannheim (Baden)	16.8	15.5	13.1	13.9	12.1	10.4	8.8
Posen	13.8	12.6	11.2	12.2	11.0	9.6	8.9
Sugar (per 100 kilograms = 2.2 cwt.):							
(*a*) Raw sugar:							
Cologne, light grain, 96 per cent. polarization, exclusive of sacks	15.8	16.1	15.8	14.8	11.7	11.9	10.3
Magdeburg, first quality, 96 per cent. polarization, exclusive of sacks	15.2	15.6	15.2	14.3	11.1	11.2	9.8
(*b*) Sugar refined:							
Cologne	19.2	19.8	19.5	18.2	14.9	14.9	13.0
Magdeburg, first quality, in loaves	18.7	19.2	19.1	17.7	14.6	14.1	12.6
Coffee (per 100 kilograms = 2.2 cwt.):							
Bremen (Rio) good ordinary	30.2	24.8	19.7	19.6	22.3	19.4	21.5
Frankfort-on-the-Main (Java) good, ordinary	44.0	41.3	35.0	37.4	36.6	33.6	35.0
Hamburg (Santos)	30.9	25.0	19.8	21.6	22.3	19.3	22.5
Mannheim (Ceylon) good middle quality	58.2	55.7	52.4	52.2	49.7	47.6	49.9
Rice (per 100 kilograms = 2.2 cwt):							
Bremen (Rangoon) peeled, best quality	6.3	6.1	5.1	5.1	5.1	4.9	5.0
Hamburg (Rangoon) lowest quotation	5.9	5.4	4.5	4.7	4.7	4.4	6.1
Herrings (each cask, at 150 kilograms):							
Stettin:							
Crown matties, including casks	9.7	7.3	8.1	9.5	7.9	7.4	7.4
Scottish matties, including casks	8.1	7.2	7.9	8.4	6.8	7.9	8.5
Tobacco, manufactured (per 100 kilograms = 22 cwt.):							
Bremen:							
Kentucky, ordinary, including packing	12.4	14.0	15.0	15.7	19.6	17.9	10.7
Brazil, second quality	21.8	21.0	19.3	21.1	19.7	18.9	23.8
Hamburg:							
Domingo							
Brazil							
Cotton (100 [illegible]							

A.—*Average wholesale prices of chief articles in the German Empire, &c.*—Continued.

Articles, measures, and names of market.	1880.	1881.	1882.	1883.	1884.	1885.	August, 1886.
Pig-iron (per 1,000 kilograms = 22 cwt.):							
Berlin, from the store:							
Best Scottish cast iron, No. 1	$20.7	$19.4	$19.9	$19.6	$17.8	$16.6	$15.2
English (Middleborough), No. 3	16.9	15.5	16.0	15.0	13.9	12.7	11.9
Breslau, at the works:							
Puddling-iron	15.9	13.3	15.7	13.2	12.9	11.5	9.4
Foundry-iron	17.4	14.8	16.5	15.1	14.3	13.4	11.6
Dortmund, at the works:							
Bessemer crude iron	18.7	16.5	16.7	14.4	12.6	10.9	9.9
Westphalian puddling-iron	16.3	13.6	15.4	13.7	12.0	10.5	9.5
Dusseldorf, at the works:							
Best German puddling-iron	19.8	14.0	15.3	13.7	11.9	10.6	9.7
Best German foundry-iron	20.7	17.4	17.8	17.4	15.0	13.9	11.6
Lead (per 100 kilograms = 2.2 cwt.):							
Berlin	7.9	7.4	7.1	6.4	5.5	5.0	6.3
Halberstadt, refined, soft, at the works	.....	.....	6.4	5.7	4.9	5.1	5.6
Cologne, double refined, soft	7.6	6.9	6.7	5.9	5.1	5.3	6.1
Copper, (per 100 kilograms = 2.2 cwt.):							
Berlin	35.5	33.4	34.9	33.6	29.9	25.3	21.2
Hamburg, English, in blocks	33.5	32.4	35.7	33.5	30.0	23.2	20.0
Zinc (per 100 kilograms = 2.2 cwt.):							
Breslau	8.0	7.3	7.5	6.9	6.5	6.2	6.1
Cologne	9.0	7.3	8.1	7.3	6.9	6.7	6.5
Tin (per 100 kilograms = 2.2 cwt.):							
Hamburg	45.0	47.8	54.0	49.7	44.0	46.9	52.5
Petroleum (per 100 kilograms = 2.2 cwt. with barrel):							
Bremen, American white refined	4.1	3.8	3.4	3.7	3.6	3.5	2.9
Stettin, American white R. P	4.4	4.1	3.6	4.0	3.9	3.7	5.1
Pit coal (per 1,000 kilograms = 22 cwt.):							
Breslau:							
Nether Silesian for gar	2.4	2.4	2.4	2.3	2,3	2.3	2.3
Upper Silesian for gar	1.5	1.5	1.4	1.4	1.4	1.3	1.3
Dantzic, delivered on board:							
Double sifted nut coal, English	3.1	3.3	3.2	3.1	3.1	2.9	2.8
Scottish, machine coal, lump coal	3.2	3.5	3.1	3.0	3.1	2.8	2.6
Dortmund, at the pits:							
Lump coal, for export	2.0	1.9	1.8	1.7	1.7	1.7	1.5
Puddling-coal, good quality	1.4	1.2	1.2	1.4	1.4	1.2	1.0
Saarbruck, open-burning coal	.....	.....	1.9	1.9	1.9	1.9	1.8

Many manufacturers carried on their business with a profit next to nothing, and, in numerous instances, for the mere purpose of retaining, in anticipation of better times, skillful laborers, who, if dismissed, would go to fill the ranks of dreaded competitors.

In 1886, however, signs of a revival of business were noticed, and prices show towards the end of 1886 a considerable rise, as compared with prices in June last, especially in metals, cotton, hemp, wool, silk, and flax, while cereals declined.

Exporters stated to me that consumption of stock had given the first incentive to trade in many instances. But in my opinion there can be no doubt that a brisk exportation set in when the United States sent large orders in consequence of the strikes and labor disturbances then prevaliing at home.

According to consular reports the German Empire exported to the United States in the year ending September, 1886, $76,588,045.18, as

B[a].—*Value of declared exports from the consular district of Berlin to the United States during the four quarters of the year ending September 30, 1886.*

Articles.	Fourth quarter, 1885.	First quarter, 1886.	Second quarter, 1886.	Third quarter, 1886.	Total.
Albums					
Amber	$61,036 54	$32,385 85	$142,971 09	$328,546 65	$564,940 13
Animals (oxen)		778 42	788 98	500 99	2,068 39
Art, works of	1,025 78				1,025 78
Artificial flowers			1,395 63	3,668 67	5,064 30
Baskets, cane ware	2,685 72	3,132 17	764 69	984 19	7,566 77
Books	534 07	352 78	655 69	5,318 71	6,861 25
Bristles, brushes, horse hair	2,917 95	3,489 53	6,659 75	4,838 34	17,905 57
Buttons:	2,013 44	6,716 40	7,160 39	11,452 83	27,343 06
Glass, metal, wooden	10,515 33	25,937 00	19,749 66	25,166 14	81,368 13
Vegetable ivory	5,928 65	6,549 23	9,852 00	7,178 32	29,508 20
Chemicals, drugs, dyes, ink	63,988 91	35,510 25	48,145 21	55,768 48	203,412 85
Chromos	2,847 22	4,463 83	5,524 99	1,664 52	14,500 57
Colors	26,885 67	11,541 97	12,883 70	7,967 91	59,279 25
Colors, aniline		22,295 07	22,788 97	19,099 16	64,283 20
Dress and piece goods:					
Cotton and cotton mixed goods	4,807 00	523 18	8,787 50	5,103 76	19,221 44
Linen and linen mixed goods	5,963 68	9,277 47	2,809, 83	1,044 70	19,095 68
Silk and silk mixed goods	1,180 90	2,891 19	3,259 36	1,616 43	8,947 88
Velvet and plush goods	35,216 86	82,502 24	245,146 24	205,638 76	568,504 10
Woolen and woolen mixed goods	66,771 95	78,825 61	204,502 40	186,913 54	537,013 50
Earthen ware	2,243 71		836 66	666 56	3,746 93
Embroideries, crochet covers	20,800 58	32,026 70	10,661 14	13,299 09	76,787 51
Engravings	5,633 87	8,855 90	7,512 97	10,267 91	32,270 65
Fancy feathers	6,048 16	4,254 65	35,935 22	41,090 23	87,328 26
Fancy goods, notions, toys	6,877 45	7,267 82	7,789 70	67,522 27	89,457 24
Feather trmmings	9,522 47	676 07	1,686 70	1,384 15	13,269 39
Furniture	1,348 62	1,044 82	73 98	4,148 00	6,615 42
Furs, articles made of			9,013 70	15,411 52	24,425 22
Gas-burners			936 70	728 04	1,664 74
Glass, manufactures of	2,742 07	645 83	5,305 53	6,498 73	15,192 16
Glucose and dextrine	8,492 55	14,596 96	8,888 26	4,885 30	36,863 07
Gutta percha shields	218 81	660 24	522 38	236 24	1,637 67
Household effects		238 00	1,594 60	81 41	1,914 01
India-rubber goods	78 30		1,209 69	2,052 05	3,340 04
Instruments, musical:					
Accordeons, &c	10,778 94	18,521 70	15,381 79	15,692 64	60,375 07
Pianos and pianinos	8,254 48	7,742 92	4,524 92	8,637 61	29,159 93
Instruments, scientific	4,707 49	4,168 90	2,840 02	8,455 54	20,171 95
Ivory piano-keys			1,474 17	3,677 86	5,152 03
Jewelry			116 00		116 00
Jute bagging			2,348 30	2,588 98	4,937 28
Lanoline			1,405 96	773 42	2,179 38
Leather:					
Gloves and glove leather	69,581 03	86,166 92	55,953 50	108,897 10	320,598 55
Manufactures of	8,904 14	6,681 70	18,776 78	16,432 99	50,795 62
Liquors, malt and distilled	6,101 65	7,554 43	12,668 42	9,258 72	35,583 21
Lithographs	562 38	840 47	42 90	665 90	2,111 65
Machines			907 38	1,323 16	2,230 54
Metal:					
Manufactures of	35,564 41	12,189 33	13,673 70	23,426 66	84,854 10
Brass, bronze, and spelter goods	11,873 91	8,379 93	7,763 74	46,885 73	74,903 31
Cuivre poli articles	2,016 26	963 66	1,048 22	2,613 72	6,641 80
Zinc goods	3,038 09	11,152 25	9,439 28	66,742 81	90,372 43
Minerals	107 10		371 40	367 07	845 57
Mother-of-pearl			1,164 68	514 46	1,679 14
Mouldings, gilded	499 19	271 56			770 75
Oil paintings	28,437 54	247 12	3,451 00	21,803 18	53,938 84
Oleographs	2,899 36	1,898 76	1,718 85	46,108 81	52,625 78
Paper:					
Fancy	40,705 38	29,809 27	29,396 79	66,724 98	166,636 42
Manufactures of	25,063 55	15,068 30	26,044 16	31,604 97	97,780 98
Photographs	3,372 64	1,641 97	2,364 39	2,154 56	9,533 56
Plants	758 88				758 88
Porcelain ware	1,618 13	775 26	463 63	16,097 26	
Rags, waste paper	4,579 50	16,054 09			
Ready-made clothing					
Cloaks, wool					

B[a].—*Value of declared exports from the consular district of Berlin, &c.*—Continued.

Articles.	Fourth quarter, 1885.	First quarter, 1886.	Second quarter, 1886.	Third quarter, 1886.	Total.
Theater apparatuses	$286 79				$286 79
Trimmings	6,138 17	$30,518 28	$17,097 89	$29,735 37	83,489 71
Wines	822 58	398 59		196 64	1,417 91
Wood, manufactures of	2,985 64	2,770 08	1,633 38	1,792 42	9,181 52
Yarn, woolen and worsted	27,341 33	37,538 09	36,466 35	22,676 78	124,022 55
Total for year ending September 30, 1886	811,960 50	1,138,952 36	1,523,355 74	2,230,613 60	5,704,882 20
Total for year ending September 30, 1885	867,307 17	961,859 80	1,051,692 85	1,703,901 14	4,584,760 96
Increase		177,092 56	471,662 89	526,712 46	1,120,121 24
Decrease	55,346 67				

declared exports from the district of the consulate-general at Berlin, including the districts of the consulates at Annaberg, Berlin, Bremen, ...u, Brunswick, Chemnitz, Dresden, Hamburg, Leipsic, and Stettin, during the four quarters of the year ending September 30, 1886.

	Annaberg.	Berlin.	Bremen.*	Breslau.	Brunswick.	Chemnitz.	Dresden.	Hamburg.*	Leipsic.	Stettin.	Total.
s of eggs.							$21,473 97	$26,747 58			$48,221 55
ares of		$564,940 13									564,940 13
, wild,		2,068 39								$14,744 95	16,813 34
		1,025 78	$12,549 14					5,683 92		1,785 00	42,742 55
ware,		5,064 30			$21,698 71						5,064 30
		6,861 25	48,717 11		10,392 25	$335 71		189,515 29			255,821 61
sugar,		3,583 44	258,078 63	$355,441 33	3,867,002 74			2,922,496 68		622,800 32	8,029,403 14
se hair	$5,324 46	17,905 57	17,064 83	737 26	15,072 54	2,549 90	43,570 80	16,593 29	$433,193 33		546,687 52
ids		27,343 06			1,776 62			331,446 85	276,154 79	77,685 47	719,731 25
	64,226 63	81,368 13	9,170 14		25,162 02	1,511 29	11,675 44	36,108 36			45,278 50
dyes,					8,043 46						183,943 51
		205,592 23	227,254 16		306,093 16	22,373 60	63,252 61	196,744 29	164,641 56	5,294 20	8,043 46
		36,863 07		1,004 17							1,191,245 81
		18,954 28	155,821 64	54,603 89	16,780 31	346 90		63,068 10		43,648 00	
		14,500 57		3,547 92				54,706 94	44,545 53	4,130 02	144,583 34
oth		969,851 62				38,643 05			41,765 82		349,889 51
	1,319 90	287,497 28				14,763 69					60,814 31
		123,562 45			575 44						1,008.494 67
oods,					40,337 52				31,139 74	3,654 15	302,260 97
ixed								149,469 71		1,041 00	160,251 68
		19,221 44			1,193,772 83						190,848 23
ixed											1,193,772 83
		19,095 68		523,246 64	691 29	38,012 12	365,106 64	78,335 98			232,972 21
ixed											987,545 57
and		8,947 88		98,443 82				41,393 20			117,680 30
		568,504 10			15,830 08	774 67		10,288 60			585,108 85
olen											2,234,434 51
		537,013 50		50,923 57	3,282 18	97,631 66	205,530 23	120,517 22	1,219,536 15		71,721 66
		71,721 66									116,980 40
			116,980 40								1,637 67
per-											16,323 76
		1,637 67									14,098 13
		3,746 93		12,576 83				14,098 13			

* Exclusive of American petroleum barrels re-exported.

.—Value of declared exports from the district of the consulate-general at Berlin, &c.—Continued.

nnaberg.	Berlin.	Bremen*.	Breslau.	Brunswick.	Chemnitz.	Dresden.	Hamburg.*	Leipsic.	Stettin.	Total.
					$625, 807 12					$740, 981 65
										32, 270 65
										100, 597 65
										11, 795 32
										419, 695 56
$38, 387 02	$76, 787 51					$4, 228 55	$41, 512 67			64, 102 09
	32, 270 65					36, 631 45	53, 594 96		$15, 405 27	33, 995 24
	100, 597 65			$167, 466 30	44, 498 70					994, 134 88
	7, 566 77		$11, 782 60	10, 507 13				$969, 709 66		1, 664 74
26, 667 46	91, 136 38									371, 979 87
			18, 589 97							
										1, 820, 187 61
	24, 425 22				206 61	341, 970 40				1, 525, 218 75
	1, 664 74							39, 982 55		52, 338 04
	15, 192 16		14, 610 70					391, 828 97		17, 509 81
					1, 780, 205 06		156, 959 77		2, 480 68	562, 621 02
			234, 966 15	221, 783 04					41, 030 63	195, 081 56
199, 082 27	320, 598 85		52, 338 04				487, 826 90		193, 070 17	417, 759 79
			1, 358 83	12, 813 16					2, 923 95	5, 395, 016 22
	857 14						407, 327 50			25, 512 21
	758 88	$32, 995 61		2, 011 39						
				7, 095 17						40, 798 73
			413 17	20, 543 50	5, 374, 472 72					406, 937 84
					16, 982 78					
							39, 813 87			1, 187, 799 08
	8, 529 43						347, 570 53			34, 311 96
				56, 027 27				189, 049 20		57, 557 37
	984 86				124, 570 14	18, 006 25	37, 789 40			101, 461 49
	3, 340 04			52, 966 64						4, 937 28
							101, 461 49			1, 324, 632 21
705, 042 38	60, 375 07			12, 578 95				162, 924 21		77, 814 39
	34, 311 96									1, 018, 680 94
	20, 171 95	24, 806 47			9, 377 21	10, 847 59	27, 018 78		1, 100 00	2, 111 65
							202, 709 87			1, 373, 156 44
	4, 937 28				120 69					98, 016 61
	83, 489 71			52, 305 82			675, 206 34	35, 031 32		
1, 057, 993 49	50, 795 61									122, 981 68
	35, 583 22	726, 861 34		697, 950 10	10, 053 32				122, 981 68	309, 147 30
	2, 111 65			50, 701 43						845 57
							73, 293 81			770 75
	2, 230 54									160, 322 86
										60, 132 67
	166, 399 27	66, 788 51	2, 665 71							52, 625 78
	845 57				160, 322 86	3, 938 78				
	770 75			2, 255 05						
	53, 938 84									
	52, 625 78									

.....	.....	166,636 42	.....	.....	.....	.....	.....	.....	.....	.....	166,636 42
factures of.....	.....	97,780 98	.....	.....	8,022 96	.....	37,666 59	132,302 05	.....	.....	276,284 93
ement.....	.....	.....	.....	.....	122,995 10	.....	.....	298,549 49	.....	452 35	
hs and photo-										78,004 32	499,548 91
paper	.....	9,533 56	.....	.....	.....	.....	221,831 02	.....	.....	.....	
s, canned meat, &c.....	.....	.....	679,551 35	.....	.....	.....	.....	41,082 46	.....	.....	231,364 58
gs.....	.....	.....	.....	.....	.....	.....	.....	136,619 02	.....	4,397 12	725,030 93
te paper.....	.....	91,181 01	27,800 31	.....	97,027 78	.....	17,544 72	406,829 48	.....	.....	136,619 02
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	395,173 65	1,035,556 95
uts, bladder.....	.....	31,725 49	.....	1,011 38	.....	.....	.....	.....	.....	16,469 77	16,469 77
.....	.....	32 36	.....	.....	.....	.....	.....	25,458 39	.....	.....	68,195 26
, plaits, &c.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32 36
ttfits.....	.....	286 79	.....	.....	.....	.....	3,081 85	.....	.....	.....	3,081 85
nd cigars.....	.....	.....	126,039 09	.....	.....	.....	.....	.....	.....	.....	286 79
ivory buttons....	.....	29,508 20	.....	.....	.....	.....	14,300 95	29,161 17	.....	.....	169,501 21
es	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29,508 20
ements.....	.....	.....	.....	.....	490 83	.....	.....	.....	.....	.....	490 83
.....	.....	1,417 91	.....	.....	.....	.....	176 60	.....	.....	.....	176 60
les.....	.....	9,181 52	.....	.....	.....	.....	.....	.....	.....	.....	1,417 91
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38,169 64	47,351 16
ns, dyed.....	.....	124,022 55	.....	.....	13,755 52	.....	.....	.....	.....	.....	13,755 52
lter.....	.....	90,372 43	.....	83,219 58	6,911 66	82,086 63	.....	.....	.....	.....	213,020 84
.....	20,286 71	203,035 39	44,379 06	8,756,19	21,166 32	71,597 97	35,375 87	1,429 06	.....	13,976 91	188,997 98
for the year g September 86.....	2,118,330 32	5,704,882 20	2,574,857 79	1,530,237 75	5,917,113 44	9,846,432 02	1,456,210 31	36,770 16	118,763 79	6,880 41	567,011 87
for the year g September 85	1,348,303 00	4,584,760 96	1,912,023 70	1,416,512 10	4,203,094 31	8,045,584 82	1,067,164 89	8,027,561 31	4,118,266 62	1,707,308 66	43,054,200 42
in 1886.....	771,007 00	1,120,121 24	662,834 09	113,725 65	1,767,019 13	1,800,847 20	389,045 42	5,999,306 27	3,288,386 66	1,176,687 94	33,041,824 65
								2,028,255 04	829,879 96	530,620 72	10,012,375 77

* Exclusive of American petroleum barrels re-exported. † Dresden includes also porcelain. ‡ Bremen includes also beer, liquors, &c.

ear ending September 30—	
.....	$36,245,934 96
.....	33,363,691 77
.....	33,481,219 95
.....	25,896,008 13
.....	27,035,045 03
.....	15,526,393 86
.....	13,516,038 97
.....	13,803,899 31
n eleven years.....	12,127,988 66
.....	30,926,211 76

The following table shows in what articles Germany's total exports to all foreign countries in 1886 (first nine months) exceeded the figures reported for same period in 1885:

D.—*German imports and exports of some of the chief articles during the first nine months (January 1 to September 30) of the calendar years* 1886 *and* 1885.

Articles.		Imports.		Exports.	
		1886.	1885.	1886.	1885.
Pig, scrap, loop, and waste iron	*tons	117,609	162,222	246,636	190,530
Manufactures of iron	do	31,626	35,582	627,678	559,320
Cotton	do	134,016	119,859	8,400	6,937
Cotton yarn	do	16,699	15,772	5,438	5,485
Cotton goods	do	1,053	1,186	20,231	17,849
Raw sheep's wool	do	92,518	82,061	10,417	7,652
Woolen yarn	do	15,063	14,938	4,910	3,934
Woolen goods	do	1,265	1,244	21,469	19,596
Silk	do	2,702	2,262	712	692
Silk and half silk goods	do	381	398	4,454	3,594
Linen and jute yarn and thread	do	10,250	12,285	2,514	1,871
Linen and jute goods	do	1,664	4,433	5,412	5,223
Leather	do	5,192	5,493	5,338	5,209
Leather goods	do	600	600	4,500	4,096
Wood (rough, cut, and raw)	do	1,231,023	2,446,764	380,932	431,589
Wood articles	do	8,953	9,438	23,783	20,480
Wheat	do	219,200	509,685	378,806	611,371
Rye	do	378,806	610,371	2,463	2,892
Oats	do	65,958	183,100	12,083	7,181
Barley	do	212,446	302,255	17,698	13,114
Pulse	do	19,894	33,062	9,712	5,861
Rape and lin seed	do	67,452	89,619	13,645	15,109
Potatoes	do	21,359	37,542	98,486	64,132
Flour, starch, peeled barley	do	14,635	23,644	121,130	106,394
Lard	do	28,684	24,081	30	16
Butter	do	3,676	2,767	10,075	11,557
Eggs	head	22,550	19,693	1,440	1,692
Horses	do	57,155	57,557	10,207	12,225
Cattle	do	98,614	78,528	132,702	145,168
Hogs	do	548,789	416,001	262,394	377,897
Sheep	do	6,718	9,825	1,036,560	917,068
Wine	tons	39,672	42,488	20,609	11,633
Tobacco leaves	do	26,668	26,024	1,722	3,651
Coffee	do	95,595	91,419	18	20
Rice	do	58,242	63,996	13	6
Tea	do	1,204	1,285	4	4
Sugar	do	2,198	2,241	358,404	368,603
Brandy (not mixed)	do	331	540	51,650	55,038
Petroleum	do	261,292	287,817	112	86
Pit coal and coke	do	1,975,048	1,878,116	6,699,271	6,930,265

*Ton = 22 cwt.

A noticeable increase took place in scrap and pig iron (56,000 tons) and manufactures of iron (68,990 tons).

The condition of textile industry is reported to be more favorable than has been the case for many years past. The increase of woolen yarn exported in these nine months amounted to about 22,000 cwt.; silks and half silks, 19,000 cwts.; linen and jute articles, 4,400 cwt. An increase is also reported of exported wood and leather articles, of wine, &c.

On the other hand, the quantities imported of nearly all the items set forth in Exhibit C show a decline, in some instances to a very considerable extent, so that in this year the commercial balance is evidently in favor of Germany.

The first six months of the German fiscal year, commencing April 1,

The total amount of revenues from these sources being 167,833,560 marks in 1886, against 151,594,487 marks for same half year in 1885.

STATEMENT OF A REPRESENTATIVE OF THE IMPERIAL GOVERNMENT.

In the recent debates of the German Reichstag on the enactment of the German-Spanish treaty of commerce, in which the Liberal party attempted to make the protective policy of the Government, adopted since 1879, responsible for the decline of trade in 1884 and 1885, the representative in response pointed to the fact that the chief articles of export in Germany, such as cattle, sugar, spirits, and iron, had extraordinarily receded in price.

Suppose [he demonstrated] we underlay to our export returns of 1885 the prices of the most favorable year of the so-called "free-trade" period (prior to 1879), we would arrive at a figure of 4 milliards of mark for exports in 1885, a figure which cannot be shown by any single year of the free-trade period.

He continued to argue that it was altogether due to the increased exports within the last years, chiefly to America, that Germany succeeded in getting back from abroad those 600,000,000 marks in gold, which, owing to its former unfavorable commercial balance, had left the country. As a "reliable barometer," as a "mathematical proof of the nature of Germany's foreign relations," he mentioned the rates of exchange for bills, which for two years past had been in favor of Germany. Gold on hand continued to increase, coming in from abroad. Two factors regulated commerce with foreign nations: Balance between imports and exports of goods, and credit and debit of public securities (stocks and bonds).

Nevertheless a Berlin paper of influence expresses the opinion, in the face of the above figures, that many of the convinced adherents of the dominant protective policy begin to entertain doubts about the success of the latter. They compare the period of the very first commercial treaties with the politico-commercial events of more recent years with a view to imminent political disturbances most likely to occur before long. Those treaties were concluded for a number of years; the exterior calmness of commercial relations then seemed to be secured and not exposed to disturbances such as nowadays are coming from divers quarters, and at unaccountable intervals troubling, almost uninterruptedly, business and trade.

During the decennials for which those treaties were concluded the custom tariffs of the respective countries remained nearly unchanged, and the manufacturers were therefore able to control, easily, their foreign commercial relations.

The comparatively long term of duration of the treaties gave them guarantee that the economical policy of the several countries could not, [illegible] will and at a chosen time, change business calculations.

Since the expiration of the treaties (in the years from 1860–'70) this state of things has totally changed.

The treaty of 1860, concluded by Napoleon III with Great Britain, tended to reduce the rates of the general French tariff in order that this reduction might be followed gradually by other reductions, preparing the way for free trade; other states followed the example, and the whole movement resulted in a haggling about the rates of [illegible]

made under Napoleon III had only served the interests of Great Britain, by securing to this country industrial preponderance. The demand for higher duties became then more and more general, and the repeated prolongation of the term of treaties was only intended to gain time for new negotiations.

But all these preparations had but one object, namely, to introduce a tariff serviceable as a weapon for new treaty negotiations. To grant further reductions of tariff rates was by no means intended.

The later treaties distinguished themselves from the former by the small number of stipulations as to tariff rates, while the old treaties, not uncommonly, were based upon true conventional tariff rates. The autonomy was thus restored to the several contracting states, and the era of high protective tariffs recommenced.

A change has, as already alluded to, also taken place regarding the term of treaties, in order to obtain back, as soon as possible, freedom of action for a quick utilization of experiences made. Treaties are in recent times concluded only for a few years.

In 1878 Italy introduced a new tariff with a long list of increased rates. Germany followed in 1879 with its tariff for the protection of "national labor"; France in 1881, transforming its ad valorem duties into such collected by weight, but, implicitly raising duty rates. Austria-Hungary followed in 1882. In Switzerland a higher tariff was passed in 1885, and this year, 1886, Roumania enacted a general tariff. Amended tariffs are said to be once more in preparation in Germany, Austria, Italy, and France. It is stated that Brazil recently has given notice for the expiration of all commercial treaties with European countries which lapse in 1887.

No wonder that manufacturers have become demoralized and despondent.

PROTECTIVE MEASURES CLAIMED FOR GERMAN SOCIAL REFORM.

Ever since the dogma of protection was promulgated a great transmutation in social political views has taken place. Germany took the leadership in adopting a so-called social legislation.

Acquisition of all railroads by the state, acts providing for sick and invalid laborers and seamen, are only preliminary steps in this direction. The intervention of the state in industrial matters, its providence and care for the economical and moral prosperity of its subjects, become more extended. A Berlin paper says:

> Protective duty is not only the first step towards social reform, but also its first condition. The same has created new economical bodies, a new national order, dividing, so to say, the international economy into national groups of as high a development as possible. To continue the structure upon this basis also, in an international respect, is now the task of the future.

The writer thinks here of treaties or conventions to establish a uniformity in laws for the protection of laborers, their wives and children.

land and France, in Belgium, and of late also in the United States and in Italy, bloody riots and a brutal destruction of property. * * * England, with its free trade, has, within the last six years (since 1879) made less economical progress than Germany. While the English export trade has remained almost stationary since 1879, German commerce and also production of coal and pig-iron has considerably increased. If this was possible in England, despite her immense wealth in capital, her long-established commercial relations all over the globe, it is at any rate evident that a protective system—which at least secures the home market—has comparatively upset the free-trade theories of England and Belgium.

On the same topic the London Times of September 6 last wrote a lengthy article, from which I may be permitted to quote a few interesting passages:

But a time has come at last in which other nations are entering into active competition with us, and in which that competition is aided and fostered by every means which their respective Governments can command. Among these means must be numbered the acquirement of colonies and trading stations, the support of manufactories, and the active assistance of ministers, consuls, and agents. * * *

There is the fact of the presence of an army of private or commercial agents, whose first care it is to master the languages of the people to whom they are sent, to understand their wants and their prejudices, to ascertain the qualities which they most highly value, and to keep their employers informed on these matters in such a way as to modify the character of the goods which are exported. * * * A traveler or agent should be acquainted with the technical processes of the manufacture of the article in which he deals, so as to see what variations in the character of these articles would be practicable as well as commercially profitable. * * * A mere desk training is not sufficient, and should be supplemented by time spent in the workshop. No amount of consular interference will preserve the trade of manufacturers who fail to adapt their wares to the requirements of consumers. * * * We believe that the commercial success of the Germans in many countries in which they have only recently obtained a footing is in large measure due to their devotion to work, to their being content with small profits, and to the fact that they stick to business while their rivals are amusing themselves.

A BRITISH CONSUL ON GERMANY'S IMPORTS INTO SPAIN.

As under the new consular convention, just ratified between Germany and Spain, their reciprocal relations deserve notice, I add here an extract from a report of the British consul at Madrid as to German imports. He reports that the export in 1884 reached an extent twenty-six times larger than it was in 1885, that the Spaniards complain frequently of the shoddy quality of German goods; nevertheless the German traveler gained the precedence over his French and English rivals. The former understood the Spanish language and got, therefore, great advantage over those who must offer their services through an interpreter or simply produce their price lists. In Malaga, the consul states, exists a colony of young Germans, who there acquire the Spanish language and study the tastes of the people.

FRANCE AND GERMANY.

France, some time ago, delegated to Germany one Mr. Amédée Marteau, with the special instruction to study the present condition of German industry.

The *Petit Journal* published recently on this subj...

German imports into France, and the decrease of French exports to Germany, viz:

Years.	German imports into France.	French exports to Germany.	Balance in favor of—	
			German imports.	French exports.
	Marks.	*Marks.*	*Marks.*	*Marks.*
1875	349,000,000	426,900,000	----------	77,900,000
1876	389,000,000	431 200,000	----------	42,200,000
1877	372,800,000	395,100,000	----------	22,300,000
1878	418,500,000	343,700,000	74,800,000	----------
1879	413,000,000	343,500,000	69,500,000	----------
1880	438,200,000	361,900,000	76,300,000	----------
1881	454,700,000	383,000,000	71,700,000	----------
1882	476,500,000	338,800,000	137,700,000	----------
1883	461,700,000	326,000,000	135,700,000	----------
1884	416,900,000	327,000,000	89,900,000	----------

GERMAN AND FRENCH EXPORTS TO THE UNITED STATES.*

While Germany in 1877 exported to the United States for $27,971,512.29, and France, $49,183,691.47; Germany in 1886 exported $76,588,045.18; France, $64,979,036. Thus exports to the United States in the last nine years went up from Germany by $48,000,000; from France only by $16,000,000.

JAPAN AND GERMANY.

A report of a German consul in Japan speaking particularly of imports of drugs and chemicals, says:

China and England depend here on German firms through which business is transacted, especially during the last three years, since the introduction of a regular direct shipping opportunity from Bremen and Hamburg to Japan. German chemical and pharmaceutic preparations have become so popular that during 1885 Japanese buyers made it a condition that these articles should be of German origin.

REVIEW OF THE ECONOMICAL YEAR 1885 IN THE PRINCIPAL CIVILIZED STATES.

Prof. E. Struck, of Aix-la-Chapelle (see Schmoller's *Jahrbücher*), gives the following figures as to the extent of decrease in exports for 1885 as against 1884:

	Germany.	England.	Austro-Hungary.	France.	United States.
	Marks.	*Marks.*	*Marks.*	*Francs.*	$41,700,000
Imports	316,000,000	320,000,000	56,000,000	137,600,000	60,600,000
Exports	344,700,000	400,000,000	4,600,000	47,000,000	

A retrogressive movement is noticeable also in the inland trade of these states. In this respect Germany appears to be better off than the other states:

Years.	Revenue from railroads.	Circulation of Imperial Bank.	Production of pig-iron.
	Marks.	*Marks.*	*Tons.*
1884	888, 180, 000	12, 130, 000, 000	3, 562, 000
1885	892, 000, 000	12, 547, 000, 000	3, 652, 000

In England the revenues from railroads amounted to £54,000,000 (£1,000,000 less than in 1884).

The returns of the London Clearing-House fell from £5,755 to £5,502 *i. e.*, by £253. Pig-iron production went down from 7,530,000 to 7,250,000 tons; the number of bankruptcies went up from 4,394 to 5,089.

In Austria-Hungary the receipts from railroads increased by 800,000 florins only; the returns in bills of exchange declined from 630,000,000 to 510,000,000 florins; raw iron production from 352,300 to 344,600 tons.

In France the loss in railroad receipts was considerable—38,000,000 francs.

French papers of recent date point emphatically to the unexpected influence which the St. Gothard Railroad exerts upon French railroad and maritime business. This railroad establishing the best and most direct communication between the countries of Northwestern Europe and Italy, the Suez Canal and India, receives, so to say, as the main river all the tributaries of export business from its adjacent countries. Even Northern France sends its goods by this way to the Levant, &c.

The returns of the Bank of France fell, with 1,266,000,000 francs short as against the preceding year; pig-iron production diminished from 1,872,000 to 1,629,000 tons.

In the United States revenues from railroads remained at the same height, and only comparatively small decreases occurred in the returns of the different clearing-houses ($43,905,000,000 to $41,961,000,000), and in pig-iron production from 4,590,000 to 4,530,000 tons, while the beginning of an improved economic condition showed itself in the smaller number of failures (total liabilities fell from $226,000,000 to $124,000,000) and the increased number of furnaces in blast.

If the decrease of German imports and exports—apart from England—appears to be more considerable than in other States, and this particularly in view of the prostration of agricultural interests; yet Germany, and next to it, America—probably owing to their protection of national labor—stand comparatively favorable, inasmuch as inland trade and consumption are concerned. Worse in every respect appears to be England.

In contradiction to Professor Struck's deductions seem to be the views of another economist, the well-reputed Leroy-Beaulieu. In a treatise published in the *Revue des Deux Mondes* on "The decline of prices and the crisis in international trade," he states, among many other very noteworthy data, the true causes of overproduction as follows:

The opening of large continents; the improvements in [illegible] ways of trade and traffic; in-

cause pressure from taxes but also withdraw means from private enterprises.

The household of the world [a commentator adds] has entered upon a new era; the causes and effects are of so profound and far reaching a character that all explanations deduced from superficial, transitory, incidental, and single occurrences or measures must be regarded, from the very outset, as a failure and a fallacy.

These inferences of a free-trader seem to be in contrast with reported indications of the merits of the German protective policy since 1879.

Thus wages show a rising tendency, and the statement in my last annual report "that the only class of people who derive advantages from low prices of provisions, with permanent work, while wages remained unchanged, are the workingmen," holds, to say the least, true also at this time, and not only this. A fact to which in this connection weight must be given is, that since 1879, the year of the inauguration of a protective policy, Germany's population experienced an increase by 3,000,000 persons, the largest portion of which must be counted as belonging to the working classes; and yet no lack of work was noticeable. Further, the savings of the less affluent people in Prussia show a constant rising percentage. The savings banks in Prussia reported for the last year, 1884–'85, an increase of 1,042,000 marks over the year 1883–'84.

Considering the amounts invested, the following classification is reported for 1884–'85:

Amounts invested.	Increase.	Per cent.
	No.	
Up to 60 marks	97, 565	9. 54
Over 60 to 150 marks	54, 858	8. 49
Over 150 to 300 marks	30, 029	5. 22
Over 300 to 600 marks	20, 731	4. 69
Over 600 marks	23, 049	7. 92
Total	272, 232	7. 54

The percentage of the smallest investments up to 60 marks, which in the years 1872 to 1876 permanently fell, and since 1879 first slowly but from 1882 very considerably rose, shows from the last year again an increase.

The total amount of all investments (amount of interest added) at the close of the year 1884–'85 was 149,375,423 marks.

These savings banks are almost exclusively used by the smaller people, while the more wealthy classes deposit their moneys with so-called deposit banks.

A decrease shows itself also in the number of paupers in Prussia receiving relief either from cities or townships, &c. Expressed in percentages, this decrease is as follows:

Items.	1884.	1885.
	27, 279, 111	18, 313, 833

life and movements of the people, if you observe trade and traffic, the circulation of capital, the rush for watering places, the increased facilities of transportation, &c., you will notice, as a rule, a more or less comfortable, thriving state of things. Of real undeserved poverty there is nowhere the question, even if the expenses of large cities for paupers increase in proportion to the increase of their total amount of expenditures, and of their working population * * * Of famine nobody can speak; opportunities of work for people willing to work are not lacking, perhaps with the exception of commercial clerks and technicists.

Against the nocuous consequences of diseases and injuries provision is made by sick funds, and insurance in case of accidents. Primary schools of an acknowledged excellent system are accessible, either free of charge, or at very cheap rates, to the lowest social classes.

The question of good and cheap dwellings is solved every day better with the increased building activity favorable to the laborer.*

That, as a rule, the great masses of the people enjoy a comfortable living, can be judged from their clothing, their dwellings, amusements, &c. Ragged people, excepting tramps shunning work, are but rarely to be found; on the contrary, a certain decency in clothing on Sundays and holidays and certain sumptuousness on festival occasions is perceptible. * * *

How considerably the property of our nation in foreign bonds and securities has grown is proven by the fact that two milliards of marks, the estimated amount ot Russian state bonds, are in the hands of German holders. We possess a large number of shares and bonds of Austro-Hungarian and Russian railroads. We are creditors of Austro-Hungary, Roumania, Servia, Turkey, Italy, Egypt, Spain, Sweden, and Norway. Our banks have lately negotiated an Argentine loan, shared in the negotiation of a Portuguese loan, &c.

Mines and smelting works, at present comparatively in the worst condition, do not discontinue work, but enlarge and improve their works and plants—in the cities, activity in building houses; in the country, of canals, and as the main railroad lines are nearly completed, the construction of branch railroads; of iron steamers instead of wooden vessels is carried on; and finally, Germany can point to a well administrated state budget, in which the items of loans are more than counterbalanced by property yielding interest, such as railroads, forests, domains, &c.

VIEWS OF A PESSIMIST.

It is but proper to complete this picture by the statements of a Conservative paper, pleading in favor of severe protection. The *Reichsbote* writes under date of November 3, 1886, as follows:

Every productive labor is complaining. Agriculture, trade, and industry show so low a state of prices of their products, that they are hardly able to produce any longer without risking economical ruin. One should think that with such low prices living would be cheaper than it was formerly, but the contrary is the case; the pressure of prices relates only to the wholesale prices, but not to the retail prices for consumers. Everybody complains that former incomes are no longer sufficient to meet both ends; not only the farmer and mechanic, but also the classes who live on their salaries or annuities, notwithstanding that salaries of state officials, &c., have been considerably raised in recent years.

Parents in the country, who must send their children to schools in the city, are nowadays compelled to expend double the amount as compared with former years. But not only the subjects complain of insufficient means, the states also are continually short of funds.

Nearly every fiscal year closes with deficiencies. In spite of the revenues having augmented immensely, the expenditures do outrun them notwithstanding, and a demand for larger revenues, by opening new sources of finances and taxes and duties, is addressed to the Parliament of the Empire and the several German states almost every session.†

Hence everywhere want of money to meet the necessities of life, with simultaneous complaints of low prices for productive labor. On the other hand, Germany has an abundance of money, more than this country ever possessed heretofore. [illegible] the "Bourse" opens a subscription for any [illegible] same is on the very first [illegible]

How may these remarkable contradictory occurrences be explained? How does it happen that the prices of manufactures at the time of their production, hence the wholesale prices, are so low, may continue to decline, while retail prices are high and rather continue to rise?

This question is of the utmost importance, for in it lies the source of our calamities. The pressure of wholesale prices weighs upon the producer and places him in a compulsory condition, while the high retail prices again affect the necessaries of life for the consumer; and both evils bear heavily upon the domestic trade and the production for home consumption, impairing with the great mass of population the susceptibility of consumption. Which are now the causes of this state of things? The chief cause, in our opinion, are the maneuvers of the "Bourse." The latter introduces foreign loans into our country, thus making us tributary to foreign states. Since these have no money they must pay the interest in products, and this at any price. But not only the interest, also manufactures exported by us to those countries have to be paid by them in products, consisting, as a rule, in agricultural products with which we are already overstocked. This subjects our farmers to such an enormous competition that their prices are pressed down and their susceptibility to consume domestic manufactures is weakened. Their sales at home are curtailed, and our industry is compelled to make constantly new arrangements for exportation. But appearing in the foreign markets it encounters the competition of all manufacturing states, and is thus under the necessity to underbid same by selling at prices receding more and more every day, thus causing a decline of prices through international rivalry. In order to make up to some extent for this shortcoming, our manufacturers seek to keep prices at as high a level as possible by the expedient of "cartels" [conventions].

Upon domestic retail prices, however, the intermediate or commission trade and the existence of large cities exert an immense influence. Through how many hands has grain to pass before it appears in the form of bread on the table of the consumer! Similar is the case with regard to meat, milk, vegetables; and, indeed, the price of provisions continues, at present, to be on the same level as many years ago, when wholesale prices of agricultural products were twice as high as they are now.

In smaller cities and in the country where producers entertain direct relations with the consumer, and are less dependent on the commission trade, the case stands not so bad as in large cities; in case of necessity baking and butchering can be done on one's own estate, but in the large city the intermediate trader has all connections in his own hand, and the more powerful he becomes, owing to an ever-increasing concentration of capital at single places, the more powerful becomes intermediate trade.

And prices of the large cities react on prices in the provincial towns and in the country generally.

In consequence of fluctuations and unprofitableness capital is withdrawn to a greater extent from production every day and turns to commerce, and particularly to the "Bourse." Thereby the rotation of evils just described, and thus the economic calamity is more and more intensified. The masses of capital pouring into the bourses whenever there is a loan negotiated, urge negotiators to devise schemes for new loans, and the more needy the countries are the larger commissions have to be paid to the financial agents, whose risk is but a very slight one.

The German capital going to foreign countries promotes there industry and farming, while those at home are impaired, and the borrowing country having no money is compelled to pay interest with its products. Thus the new loans for Buenos Ayres will force that country to export a larger volume of produce, and thus, by their competition, aggravate the condition of German farmers.

The growth of financial transactions in the exchanges of Germany is confirmed by an article of the London Pall Mall Gazette.

German merchants, by taking control of export trade, have attracted the adjustment of foreign debts to Berlin, Frankfort-on-the-Main, &c. English financiers and French bankers are amazed at the large progress made by Berlin as a money market. By its aid Russia bade defiance for years to the mistrust of Western Europe. Scandinavian loans were negotiated in Germany at prices that by far exceeded those which [illegible] more willing to offer. Italian, Spanish, and [illegible] German markets,

the rate of interest on loans, on depositing bonds of the Empire or the German states, to 4 per cent.; on depositing other collaterals, 4 per cent. This measure is regarded by financial circles as merely preventive, to strengthen the reserves of the bank. But as there is no scarcity of specie on hand, rather an excess above the average amount for the year 1885, and a decrease of the assets of bills of exchange, conservative papers explain the measure as intended against the speculation in foreign emissions and securities, considering the low rates of interest at home. This steady decline of rates of interest during the last years has led to a period of conversion of all domestic bonds and securities. The Prussian state commenced at comparatively brief intervals to reduce its 5 per cent. state bonds successively to $4\frac{1}{2}$, then 4, and recently proceeded to convert first-mortgage bonds of the railroads, acquired by the state, into $3\frac{1}{2}$ per cent. bonds. The example given by the state was eagerly followed by manorial, agricultural, township, and other corporations, so that during the last two years the chief activity of the financial world consisted in effecting such conversions.

German capital has thereby been injured very palpably, even if granted that Germany's wealth experienced a large augmentation in the last decade of years. This undesirable state of things has resulted in a demand for foreign paper, bearing the higher rates of interest. This affects largely the branches of industry, which, on the whole, are stated to be in an inchoate state of prostration, since a great change for the better is hardly expected in the near future.

The railroad systems and the transmutation of sailing vessels into steamers is now nearly completed in the chief countries of Europe. Thus the aims of industry are here nearly fulfilled, and now confined to mere repairing and supplementing inventories, plant—an irrelevant work in comparison with the astonishing achievements of the last four decennials.

But one of the large enterprises to be carried out in the near future will be the construction of the North and Baltic Sea Canal, necessitating a loan of about 150,000,000 marks. Nineteen millions have just been appropriated by the Reichstag as first installment. In past years various projects have been brought forward to connect the North Sea with the Baltic Sea.

The canal is to have its egress between St. Margarethen and Brunsbüttel, on the Lower Elbe, thence deviating and cutting through the Kudensee in the marshy district, following the valley of the little river Burger-Au, and proceeding by way of Burg (15 kilometers) to Gröndel (30 kilometers), the highest ground traversed. It then follows the valley of the Giesel-Au to Wittenbergen (42 kilometers), where it emerges in the Lower Eider.

The next place of importance on the route is Rendsburg (62 kilometers), which is passed on the north side; the canal then following the Upper Eider lakes, leaves the latter at 75 kilometers distance, cuts through the north side of the Flembuder Lake, and merges in the west side of the harbor of Kiel (99 kilometers). The locks necessary will be of a character to facilitate navigation to the greatest extent.

The canal is to serve both for military and commercial purposes. The total length of the canal will be 99 kilometers; the width of the surface, 60 meters; and at the basis, 26 meters, the depth being 8½ [illegible]

Without danger of collision it [illegible]

It is estimated that the excavations will reach 64,000,000 cubic meters, and that 71,000,000 marks will be paid in laborers' wages. The canal will be crossed by four railroad lines.

The construction of this canal is looked upon as another effort to better the condition of trade and industry in Germany.

CONVENTIONS FOR FIXING PRICES.

Commercial papers contain nearly every week notices of efforts to conclude conventions, successful or otherwise, for limiting production and fixing prices.

Thus, *pourparlers* of the leading rubber manufacturers resulted in an agreement to raise prices for rubber balls by 25 to 30 per cent. By the way, Germany exports from about 5,000,000 to 6,000,000 marks of that article per year, which can only be made by hand. Its manufacture grants support to thousands of male and female laborers.

Six of the largest manufacturers of pig-iron of Upper Silesia, one of the two great mining districts of Prussia, concluded, on the 21st day of October, 1885, the following convention:

The undersigned works bind themselves up to the 1st of April, 1887, not to have more furnaces in blast than they have at present. Towards the end of this month a meeting shall be held in order to increase prices of pig-iron by all contracting works.

A like convention is contemplated by owners of rolled-iron works. One advocate of such conventions says:

The end of these price reductions cannot be determined as long as production and sale of German iron articles lack united organization of the manufacturers, and as long as the works, by continually increasing production in excess of demands, reduce their cost-price by little degrees, but, at the same time, involuntarily, to a smaller or greater extent reduce their selling prices, solely in order to place their products on the markets.

On the other hand, one or the other owner of iron works thinks, by cheap sales without profit, to ruin competitors. This, of course, may occur, and the late competitor may leave the work as a bankrupt, but the work itself, provided it be, both in its technical adjustment and geographical location, equal to the competing works, remains. It changes only the proprietor; the mortgage creditors are ready to acquire the works at a price far below its real value, and then, with a very low capital invested in the works, considering the cheaper cost-price, they are enabled to bring their product anew in the market, perhaps making the late victor a victim in the struggle for life.

DIVIDENDS.

Such complaints seem to be well founded. From a comparative statement as to dividends paid in the year ending June 30, 1885, with the estimated dividends to be paid this year, I learn that of 60 works (of which 47 are iron and mining works) only 3 are expected to pay a somewhat higher dividend this year, while 21 did not pay any dividend at all in both years. But there are exceptions. A machine work paid this year 33 against 27 in the preceding year; a dynamite work, 12 to 13 against 6½; and a chemical work paid only ½ per cent. dividend more this year.

[illegible] year 1886 [illegible] in the

It is granted that the change made in Germany's economical system was already the result of a calamity generally felt. This latter existed prior to the introduction of protective duties, and the same continues to exist in spite of same even to-day.

Concerning the influence of customs barriers upon the whole situation of international trade, it seems as if Germany had, under all circumstances, overrated the same. Notwithstanding considerable duties on grain, for instance, the prices for cereals constantly recede.

Free-traders deduce from this fact the uselessness of these duties, while their opponents claim that the state derives therefrom higher revenues without prejudice to consumers; but, nevertheless, the fact of low corn prices and a bad condition of farming remains.

Not the system of economy, but causes beyond the reach and control of state reformers, seem to further deteriorate the markets of the world. Over-population in all occupations, higher claims of all social classes in their modes of living, the transition of many nations hitherto mostly consumers to the side of producers, and the natural limits to the expansion of the market—all these circumstances combined had, of necessity, to conduce to an economical crisis that, irrespective of theories, has not failed to make its appearance in all countries, whether free-traders or protectionists, whether old or young—in short, everywhere.

A difference exists, perhaps, only in the degree of calamity. I have pointed already to one of the remedies, or rather palliatives, to which German manufacturers had recourse, namely, price conventions. Another is sought for in a further increase of duties (the next Reichstag will disclose this fact); further, in the conclusion or amendment of commercial treaties—a rather two-edged sword, as I have shown above. Copies of latest conventions I have not failed to transmit to the Department of State, viz., of German treaties with South Africa, Spain, &c.

Colonial policy is another catch-word. Tropical colonies are said to enable Germany to appear in the world's market as producer of articles for which heretofore it was compelled to pay England large amounts of money.

The excess of tropical produce imported into Germany over exports is as follows: Cotton, 179,000,000 marks; coffee, 123,000,000 marks; tobacco, 145,000,000 marks. The total amount of money paid for all sorts of tropical articles is rated at 780,000,000 marks per year.

Further, colonies shall serve to employ that mass of disposable working forces (who either are entirely unemployed notwithstanding their partly costly education, or serve to augment at home the surplus of discontented people) for the erection and production of raw material, and thus to enlarge the number of paying consumers.

The objection to the unhealthiness of African climate is refuted by the argument that Africa is no more unhealthy than any other portion of the globe situate within the same zone; and that if the Spaniards, in their time, on account of the fever climate, had allowed themselves to refrain from a farther advancement into America, it would be doubtful whether America had ever attained that important place which it to-day occupies in history and industrial development.

To give an idea of the methods and [illegible]

zones the "[illegible]"

colonial pursuits. The South American exhibitors, all German emigrants, show a great variety of natural products, raw material, and goods therefrom manufactured. There were stately pyramids of specimens of coffee, a hut of lumber of palm trees, a great selection of tobacco sorts, ground-nuts, &c.

The animal kingdom was represented by beautiful skins and covers made of bird-skins and ostrich feathers, stuffed birds of magnificent plumage and luster, numerous samples of wool, &c. Of the mineral kingdom: ores, marble, and half manufactured articles.

As one of the best devices to incite trade and industry for exportation must be regarded the erection of a museum to exhibit in kind the produce and production of mankind, arranged according to the nations of the globe. Such an ingenious institution or rather academy of commerce was opened and inaugurated at Berlin, by Emperor William, a few weeks ago.

In a recent meeting of the Colonial Society one of the African explorers, Dr. Count Pfeil, alleged that they were aware already that their East African produce of cotton, coffee, and tobacco, &c., could stand competition.

On the 22d November a tobacco plantation company for East Africa was constituted with a stock capital of 1,000,000 marks, which was oversubscribed by 200,000 marks.

EMIGRATION.

In my report No. 151, dated June 19, 1886, I pointed to the efforts of German colonial societies, &c., to direct the stream of emigrants to the states of the southern continent of America. The result of this activity in meetings and in the press begins to manifest itself.

Attention is called to the fact that such decrease is noticed only with regard to North America, but not to South America; on the contrary, emigration to the latter continent, especially to the La Plata states, is reported to be on the increase. The growth of commercial relations between Germany and South American states is pointed to as a cause of increased emigration. Thus, for instance, while in 1871 the Hamburg South American Steamship Company commenced to run four vessels only, and made, seven years ago, not more than twenty-four to twenty-five passages per year, to-day there is employment for twenty large steamers, making three times as many passages as heretofore.

In 1884 two hundred and ten German vessels, with a tonnage of 293,656, called at Montevideo.

The emigration of Germany has this year considerably decreased.

E.—*German emigration in ten years*, 1876–1885.

Year.	United States.	British North America.	Brazil.	Central America, and Mexico, South America.	Australia.	Africa.	Asia.	Total.	Percentage of emigrants for 10,000 inhabitants of the German Empire.

Emigration, 1872 to 1886 inclusive.

Year.	Number of emigrants.	Year.	Number of emigrants.
1886	59, 576	1878	19, 758
1885	88, 180	1877	17, 848
1884	122, 345	1876	22, 751
1883	133, 954	1875	25, 405
1882	160, 966	1874	37, 201
1881	172, 584	1873	84, 962
1880	79, 957	1872	96, 243
1879	25, 546		

As a sort of adjunct to the German Colonial Association appears the Herman Company, its object being the establishment of German agricultural colonies in Brazil. This company will enter into commercial life in the spring of 1887. The colony of San Feliciano, in the Brazilian province of Rio Grande do Sul, is the one immediately under consideration. A capital of 500,000 marks is thought to suffice, at the outset, to provide for steamship communication, road construction, and river regulation.

SUBSIDIZED STEAMSHIP LINES IN OPERATION UNDER ACT OF APRIL 6, 1885.

On the 30th June last the first steamer left Bremerhaven for East Asia, promptly followed by other steamers according to the time tables. The results of that measure have thus far been reported as favorable. The shares of the North German Lloyd rose in a very short time from 105 to 112. Against all apprehensions, the steamers came back with full cargoes, not only for Germany but also for other countries. A business of so-called "throughgoing (transit) bills of lading" between New York and China, Japan, &c., by the instrumentality of these new lines, has commenced greatly to develop through agents of the Bremen Lloyd in New York.

In Bremen the goods arriving from America are reloaded on board the steamers of the East Asiatic lines, which on the way home bring large quantities of tea for New York.

TRANSMARINE BANK.

The emancipation of German trade from the agency of English bankers is regarded as another expedient to promote German trade. Computations have been made that the sum which English banking houses derive from transmarine trade as commission amounts to about 6 milliards of mark per year, of which Germany's commerce carries a considerable portion. Nearly the whole importation of raw material from Asia, Africa, and Australia is effected through English agents, while imports from South America chiefly feed agents at Havre, Antwerp, &c.

Taking one article, cotton, for instance, it is stated that Germany in 1885 imported same through the mediation of [illegible] 4,207,700 kilo[illegible]

be authorized to buy and sell gold and silver in coin or bullion, to make, accept, buy, sell, and discount bills of exchange, to grant loans on deposit of bills, invoices, securities, and goods, to advance money on shipments from and to non-European states, collect moneys, &c. The details for the organization of such a bank, which is to be fathered by the "Deutsche Bank" of Berlin, have not yet been published, but it is stated that the stock capital is fixed at 10,000,000 marks. A branch establishment is intended for Buenos Ayres.

Besides this colonial bank the foundation of a German Imperial bank for transmarine banking is contemplated, and a bill is to be submitted to the Reichstag. This Imperial bank is to be a center for over-sea trade.

Another institution of apparent usefulness for German trade is the "Deutsche Handelstag," an association formed twenty-five years ago at Heidelberg. The same consists of the leading German merchants, manufacturers, and other influential men, and meets once a year at one of the large trade centers of this country. The meeting of this year took place at Berlin. All German boards of trade were represented. Its object is stated to be the interchange of experiences, the mutual communications of the various conditions within the several districts and business lines, by ascertaining the requirements of production, sale, and exchange of commodities, &c., at the different manufacturing and trading places.

The projected German national exhibition of trade and industry for 1888, though supported by many advocates, did not meet with the approval of the large iron manufacturers, for the reason that the utility of such an enterprise would be rather problematic, considering the frequency of exhibitions and the amount of expenses connected with them. On account of these objections the Imperial Government desisted from proceeding any further in the matter. Similar reasons were given for Germany's non-participation in the French exhibition.

SIEMENS' PROPOSED INSTITUTE.

Special attention, however, deserves a step recently taken by Dr. Werner Siemens, that well-renowned inventor and electrician of Berlin, in the interest of German art and science, towards the foundation of a "Physical-technical institution for promoting, by experiments, the exact sciences of nature and the precision-technics." Dr. W. Siemens offered to the German Empire a donation of 500,000 marks for an institution of this kind. The German Government did not hesitate to accept the liberal offer, and the German Reichstag appropriated, a few days ago, the necessary funds in the budget for 1887–'88.

This institution is to be divided into two main departments: (1) into a "scientific department," which is to devote itself exclusively to theoretic researches within the scientific domain concerned, and (2) into a so-called "technical department," intended to utilize furthermore the results of those scientific researches in a technical respect, and to render [illegible] With this head, or central sta- [illegible] the differ-

be risked that the results of the single experimental stations could lead, instead, to a diminution, to an augmentation, or at least to an intensification of uncertainty, since a disagreement in the results of several public experimental stations is particularly annoying to the parties concerned.

ESTABLISHMENT OF A SEMINARY FOR ORIENTAL LANGUAGES.

I have referred to opinions of foreign press and representatives as to Germany's advantage in having a large stock of merchants, factors, and agents speaking the language of the country where they reside. But this country does not acquiesce in endeavors to improve her position. On the table of the German Reichstag, now in session, the Imperial Government has laid a bill to provide for the establishment of a seminary for Oriental languages, a measure taken both in favor of trade and of consular and diplomatic service. It shall be connected with the Berlin University, and its object is the teaching of living Oriental languages, with practical exercise in at present six languages, viz, Turkish, Arabic, Persian, Indian, Japanese, and Chinese. As a rule, there shall be two teachers for each of these languages, one a German, well versed in same by a long residence in the country concerned, and the other a native teacher.

The consular corps of Germany consists at present of 641 consular officers and 68 *consules missi* among 750 consular officers, viz:

In—	Offices.	Consules missi.	Officers.
Europe	359	29	421
Asia	60	17	75
Africa	52	6	61
America	154	14	173
Australia	16	2	20

AN EUROPEAN ZOLLVEREIN.

In concluding my review of the most striking features of Germany's efforts to expand her industrial and commercial power, I cannot forbear mentioning a scheme which, if carried out fully, is intended as nothing less than entirely cutting off America from the markets of Europe. This new-born child of modern political economy made its appearance under the temporary name of Central European Zollverein.

The *Kölnische Zeitung* again, which is said to be furnished periodically with semi-official articles, published a few months ago an article on the subject. I only extract, in translation, a few passages:

While formerly arguments for the advisability of protective duties were found in their educational efficacy, and while their introduction was regarded only a mere temporary measure intended to gradually render domestic industry fit for competition with foreign, now the inverse case is expressly confirmed, viz, that our industry at present is at least as efficient as that of any other nation, but that by means of protective duties we must keep out foreign goods to retain our market for ourselves. While wheat in Prussia, from and after 1878, was subject to an import duty of 1½ silver groschen per scheffel [1 scheffel = 1.5 im[illegible]
from 1827 to 1856 to 5 silver
country it

climate and as derive all kinds of raw products from their own soil, and, in case their population is large and mercantile enough, to render at home possible an industrial working and utilization of these natural products.

In such a favorable situation of economy are the United States, England with her colonies, Russia, China, and, at a more remote distance, perhaps Australia.

American industry has in the last decennials taken a start which renders the supply of European articles more dispensable every day. Farming yields by far more produce than can be consumed. The large exportation from America which, therefore, must of necessity ensue at any price, will, in a controllable time, hardly diminish. A like aspect we obtain of the other countries mentioned, though the same have not yet reached a similar high degree of development.

Thus a double danger for western continental Europe draws near—on one side the abundance of the youthful, fertile soil of America and Russia, the fruits of which it will, at a not very distant day, be no longer able to pay fully in productions of its trade and artistic industry; and, on the other side, the working force of hundred millions of skillful and frugal Asiatics. * * *

* * * Now, as manufacturers at present seek voluntarily to reduce production for the maintenance of paying prices by means of conventions, there will hardly be any better and more efficient means, as Professor von Kaufmann, a political economist at the University of Tübingen, expounds, than that also the states [of the European continent] unite and by means of treaties expand their markets, so that the surplus in any one place within their dominions may serve to make up for the deficiency in another.

Such states most qualified to enter first into such conventions are Germany and Austria-Hungary. A zollverein of that extent would embrace 82,000,000 people. Both countries produce articles which mutually supplement deficiencies. Germany would, for instance, buy its needed breadstuffs in Hungary-Austria instead of in America; India, Russia, and Austria-Hungary would buy coal in Germany instead of in England. Barriers against such articles as are produced within the zollverein would thus be duly strengthened, while barriers between the two contracting parties could, if not entirely but as much as practically, be removed. Such an economical union, once established between the two countries mentioned, would be successively joined by smaller states of Europe, which, like Switzerland, Belgium, and Holland, are particularly confined to exportation; but even France, and with it Italy and Denmark. would, in joining that union, find their account in the fight against economical commonwealths, that like the United States, Russia, China, and Great Britain, embrace whole continents, not to speak of the many advantages the "United States of Europe" could derive therefrom for a uniform legislation in social questions and for a joint proceeding in political respects. * * *

A zollverein with Austria will, therefore, be one of the tasks of the next future. * * *

GERMAN AGRICULTURE.

Having thus far tried to give a general review of changes and other noteworthy occurrences in Germany since my last annual report, I shall now give some particulars with regard to topics which consular regulations suggest as desirable subjects for an annual report. As already alluded to above, agriculture continues to remain the "child of grievance" of Germany.

"Farming stands before bankruptcy," exclaims the *Kreuz-Zeitung*, a leading organ of the Conservative party, which consists chiefly of large land-owners. It depicts the general condition of Germany in very dark colors, as it writes:

The signature of our time is the commercial collapse in the European states of culture. Farming standing before bankruptcy; industry and commerce, the destiny of [illegible] tottered to the former, a primary trade, must be paralyzed. The sources of [illegible] without bread, will be driven towards social [illegible] time. * * * Distance [illegible] globe

Since 1880 wheat and rye [per 1,000 kilograms = 22 cwt.] fell by 32 per cent.; barley, by 27 per cent.; sugar, 35; spirits, by 38 per cent.; wool by 41 per cent.* Under the pressure of supplies from Australia and South America, which from 440,000 cwts, in 1863 went up to 2,228,000 cwt. in 1884, prices for very fine wool declined by 42 per cent.; for middling and inferior wool by 50 to 52 per cent.

Raising of sheep became thus unprofitable, and was therefore reduced to 56 per cent. of the former stock. The loss the German farmers sustained thereby is roughly estimated at 157,000,000 marks.

In the same proportion as Australia, New Zealand, and the La Plata states increased their export of mutton (slaughtered sheep), chiefly to England (in steamers with refrigerator compartments), the value of exports of sheep from Germany declined. The value of such exports amounted—

	Marks.
1883	41,357,000
1884	34,956,000
1885	26,460,000

It is even worse with raising neat cattle. Holstein butter, the finest product of German dairies, experienced in the course of the last nine years a decline in price of from 142.17 marks in 1876 to 79.6 marks in June, 1886. [Severe legislative measures against margarine and other artificial butter are under contemplation.]

Dry or lean cheese, which (by physiologists) is considered the most concentrated of all articles of human food, is absolutely unsalable. Some farmers have commenced to feed cows with milk from which the cream is skimmed.

It is stated that the importation of agricultural products into Germany during the years 1872–1885 exceeded exports by 8,067,800 marks in value, a comparatively high amount, considering the fact that for Prussia alone the total value of real estate (liable to ground-tax) reaches only the sum of 18,600,000 marks.

A more rapid decline of European farming is feared when the United States, compelled by a constantly increasing competition of young agricultural countries of the globe, will evince full earnestness in the pursuit to refine and finish their raw production.

Also, this writer propounds as a remedy against the calamities stated a European Zollverein, as above described (Russia and England excepted).

INCREASED IMPORTS OF CEREALS FROM INDIA.

The appearance of a new and dangerous competitor in the international grain market is an established fact; a competitor who is able to produce even more cheaply than the United States. A Berlin trade journal (speaking of the recent fall of the price of silver, and calling special attention to the circumstance that silver had reached the lowest rate of exchange ever noticed, viz, 46 3/16 *d.*), remarked:

The lower the price of silver sinks, the more disturbance of international trade by such depreciation of silver is felt. For, in the silver market, the supplanting of supplies of American cereals by Indian wheat comes into consideration

To what extent this displacement goes on the English returns of commerce furnish a clear evidence. During the first quarter of 1886 England imported of wheat as follows:

[In 100 kilograms = 2.2 cwt.]

From—	1885.	1886.
Russia		
Egypt		
Australia		

The total exports of India rose, during the time from April 1 to July 31, 1881, from 5,895,000 cwts. to 10,622,000 cwts. in 1886.

Somewhat of a contradiction to the above complaints of German farmers gives the official publication of legally enforced public sales of real estates in Prussia, which show a decrease:

1882	16,194
1883	13,573
1884	10,528
1885	10,309

But with the striking fact that while Western Prussian provinces show a continuous decrease, the Eastern show a steady increase of public sales. In 1885 larger estates and with a better quality of soil were publicly sold; this seems to prove that the calamity of German farming becomes more intense even with estates which heretofore were better founded financially.

USURY ACT.

Much, it is true, has been done towards protecting farmers and other small people against the extortion of high rates of interest on loans and mortgages. Thus the German usury act, in force since May 24, 1880, provides that—

Whoever, by taking advantage of distress, levity, or inexperience of another person for a loan, or in case of deferring payment of a sum already due, allows or causes such advantages of property to be promised or granted either to himself or to a third person, as exceed the customary rate of interest to such an extent that, according to the merits of the case, the advantages are strikingly disproportional to the service rendered, shall be cognizable for usury, and be punished with imprisonment within six months and a fine not exceeding 3,000 marks.

Institutions are granting loans to land-owners at very low rates of interest on intangible mortgages, except in case of public sale and of such a depreciation of the realty that its net proceeds would not even reach the minimal amount of 150 marks, and except in cases where the debtor did not fulfill the obligation to insure against fire and hail. Thus, for instance, a single provincial bank, the directors of which are mostly large settled land-owners, gave, up to the close of 1885, loans on mortgages to 940 among 1,673 estates (under the statutes of the bank entitled to loans), amounting to a total of 152,551,580 marks in the single province of Brandenburg. And while heretofore a rate of 4 and $3\frac{1}{2}$ per cent. interest was paid on such mortgages, the bank has availed itself of the present low rates of exchange in the money market by causing a general conversion of all 4 and $3\frac{1}{2}$ per cent. paper into securities with lower rates of exchange.

But all these palliatives seem to be insufficient to delay the final ruin of many farmers. The decline of prices for agricultural products is constant, and this can surprise nobody, since, as Leroy Beaulieu states, the soil applied to farming on the globe has, in recent years, increased by 56 per cent. It is claimed that the augmentation of industrial arti-

third, two-thirds being consumed by indispensable expenses for the maintenance of the estate, made it a demand of urgency that duties on wheat should be raised to 22 marks per 100 kilograms, and for rye to 15 to 16 marks. He argued as follows:

India offers us wheat at 10 marks for 100 kilograms (2.2 cwt). Now, adding 2½ marks for cost of transportation, and 3 marks as the present rate of duty, such wheat would be salable with a profit in our markets, when sold at a priee of 15½ marks per 100 kilograms; while the domestic product sells at prices from 150 to 197 marks per ton (1,000 kilograms = 22 cwt.)

COST OF PRODUCING GRAIN IN PRUSSIA.

The Central Agricultural Union of East Prussia called recently for a report on the subject from the different districts of the province. Forty-nine reports were received in reply, stating that such cost in case of rye amounted for 1 scheffel (1.5 imperial bushels), at 80 pounds, at 4 to 6.67 marks, on an average, 5.16 marks. In case of wheat, for 1 scheffel, containing 85 pounds, 5 to 8.23 marks; on an average, 6.17 marks. This would be equal to 150 marks per 1,000 kilograms of wheat; 129 marks per 1,000 kilograms of rye; while at Königsberg, the chief trading place of East Prussia, in October, 1885, 150 marks, and November and December, 149 marks per 1,000 kilograms, and at Dantzig, the next large grain market, only 131 to 139 marks were paid for wheat; and for rye at Königsberg 118 to 123 marks, and at Dantzig 120 to 125 marks per 1,000 kilograms.

F.—*Quantities of cereals and potatoes harvested, imported, exported, used as seed, and left for consumption.*

[In tons = 22 cwt.]

Year.	Rye.	Wheat.	Barley.	Oats.	Potatoes.
Crops in—					
1881	5, 448, 404	2, 059, 139	2, 076, 160	3, 759, 789	25, 491, 022
1882	6, 390, 407	2, 553, 447	2, 056, 355	4, 508. 056	18, 069, 322
1883	5, 600, 068	2, 350, 878	2, 131, 202	3, 718, 469	24, 906, 431
1884	5, 450, 992	2, 478, 883	2, 229, 598	4, 236, 665	24, 019, 601
1885	5, 820, 095	2, 599, 271	1, 260, 645	4, 342, 357	27, 953, 643
Imported for consumption—					
1881	642, 696	462, 182	320, 279	339, 523	32, 474
1882	541, 390	723, 886	433, 735	169, 837	33, 299
1883	843, 690	499, 365	426, 486	405, 626	26, 007
1884	842, 122	780, 671	583, 683	293, 406	51, 194
1885	432, 043	146, 436	397, 690	109, 334	29, 694
Exported—					
1881	12, 854	106, 923	144, 357	21, 257	209, 882
1882	19, 221	145, 987	100, 315	46, 513	397, 412
1883	7, 284	63, 953	53, 777	22, 449	178, 919
1884	4, 763	32, 838	43, 780	14, 098	110, 035
1885	3, 840	19, 335	29, 962	16, 526	163, 715
Total amount at disposal—					
1881	6, 078, 246	2, 414, 398	2, 252, 082	4, 078, 055	25, 313, 614
1882	6, 912, 576	3, 131, 346	2, 589, 775	4, 631, 380	17, 705, 219
1883	6, 436, 474	2, 786, 290	2, 503, 911	4, 101, 646	24, 753, 519
1884	6, 288, 351	3, 226, 716	2, 769, 501	4, 515, 973	23, 960, 760
1885	6, 248, 298	2, 726, 372	2, 633, 373	4, 435, 165	27, 819, 622
Quantity for seed—					
1881	832, 798	314, 021	237, 018	596, 195	5, 535, 076
1882	834, 844	304, 303	236, 883	596, 114	
1883	818, 770	332, 646			
1884					
1885					

G.—*Principal crops harvested in the German Empire in the years* 1878–'79 *to* 1885–'86.

Articles.	Area under cultivation in 1885.	Quantity harvested.		Quantity harvested per hectare.	
		Yearly average in the last 7 years, 1878–'84.	1885.	Yearly average in the last 7 years 1878–'74.	1885.
	*Hectares.**	*Tons.*†	*Tons.*†	*Tons.*†	*Tons.*†
Wheat	1,913,821	2,387,930	2,599,271	1.29	1.36
Rye	5,826,618	5,760,643	5,820,095	0.98	1.00
Barley	1,739,524	2,174,502	2,260,645	1.31	1.30
Oats	3,776,838	4,250,800	4,342,357	1.13	1.15
Spelt	374,553	461,613	466,447	1.20	1 25
Buckwheat	216,482	148,963	118,150	0.63	0.55
Peas	408,523	371,232	306,774	0.82	0.75
Potatoes	2,916,333	22,064,286	27,953,643	7.86	9.59
Beets and turnips	467,804	3,538,296	3,549,767	8.77	7.59
Hops	47,391	23,183	33,201	0.55	0.70
Wine	120,485	‡2,240,383	‡3,727,366	‡18.79	‡30.94

* 1 hectare = 2½ acres. † 1 ton = 22 cwt. ‡ 1 hectoliter = 22 gallons.

As to the crop in 1886 no official returns have as yet been published. By the "International Seed Market" of Vienna this year's crops are reported to be as follows (taking 100 as a middling crop):

Countries.	1886.	1885.
Prussia	95	94
Saxony	95	100
Bavaria:		
Franconia	102	100
Suevia	105	100
Upper Bavaria	95	105
Palatinate	90	100
Wurtemberg	97	99
Baden	85	97
Switzerland	100	125
Upper Italy	125	70
Central Italy	80	78
France	85	95
Holland	90	95
England	90	80
Northern Russia	85	75
Central Russia	55	90
Podolia	60	100
Bessarabia	80	115
Roumenia, Moldau	85	110
Servia	90	117
Hungary	87	104
Austria	92½	

The crop of wheat in India is this year rated at 77,000,000 meter centners. On the whole, the east of Europe had a heavy, the west a slight, decrease against the preceding year.

H.—*Number of stationary and portable steam-engines and machines, as distributed among the different trades in Prussia in the years* 1879 *and* 1886.

Trades.	Stationary steam-boilers.		Stationary steam-engines.		Portable steam-boilers and machines.	
	1879.	1886.	1879.	1886.	1879.	1886.
Agriculture and forestry	326	441	210	310	2,522	5,374
Fishery	.....	1	.....	1	....	1
Mines, foundries, and salt works	9,460	11,215	8,350	10,505	770	927
Industry of stones and earths	1,154	1,632	1,052	1,441	422	570
Working of metals	1,286	1,687	1,200	1,528	148	174
Industry of machines, &c	1,467	1,640	1,486	1,684	208	319
Chemical industry	822	1,382	772	1,214	44	67
Industry of heating and illuminating stuffs	746	968	717	853	25	67
	3,438	4,297	3,456	4,028	83	100
	1,047	1,460	957	1,279	29	38
	1,364	1,911	1,287	1,777	242	417
			7,597	10,053	387	643
					8	23

One of the largest works of agricultural machines and implements is the H. I. Eckert's Stock Company, which in 1885 closed up with a net profit of 261,795 marks.

DISTILLED SPIRITS.

I.—*Number, kind, and amount of production of still-houses in operation during the fiscal years from* 1879–'80 *to* 1884–'85—*Bavaria, Wurtemberg, and Baden not included.*

Fiscal year.	Still-houses operated.	Number manufacturing yeast.	Number of still-houses using—			
			Farinaceous materials.		Molasses.	Other not farinaceous materials.
			Potatoes.	Grain.		
1879–'80	27,682	1,274	4,007	2,990	32	20,653
1880–'81	26,801	1,328	4,272	2,861	25	19,643
1881–'82	29,909	1,294	4,497	2,759	24	22,629
1882–'83	28,201	1,316	4,180	2,937	17	21,067
1883–'84	32,518	1,327	4,306	2,935	19	25,258
1884–'85	30,409	1,340	4,303	2,902	22	23,182

Fiscal year.	Number of still-houses working farinaceous paid whisky tax.					
	Total number.	Up to 300 marks ($71.40).	300 to 1,500 marks ($71.63 to $357).	1,501 to 6,000 marks ($357.23 to $1,428).	6,001 to 15,000 marks ($1,428.23 to $3,570).	More than 15,000 marks ($3,570).
1879–'80	7,029	948	1,326	2,159	1,540	1,056
1880–'81	7,158	958	1,445	2,102	1,432	1,221
1881–'82	7,280	921	1,461	2,036	1,370	1,492
1882–'83	7,134	895	1,384	2,033	1,463	1,359
1883–'84	7,260	924	1,454	2,007	1,507	1,368
1884–'85	7,227	895	1,440	2,006	1,480	1,406

J.—*Revenues from taxes on whisky and other spirituous liquors collected in that part of the German Empire which has a whisky-tax system in common (excluding Bavaria, Wurtemberg, and Baden).*

Fiscal year.	Gross receipts from whisky tax.	Duty on spirituous liquors imported from Bavaria, Wurtemberg, and Baden.	Duty on brandies imported from foreign countries.	Total gross receipts from all taxes and duties.	Bounties and drawbacks.*	Net receipts from taxes and duties.	
						Total.	Per capita.
1880–'81	$13,630,600	$28,700	$424,000	$14,084,600	$2,874,500	$11,209,500	*Cents.* 31
1881–'82	15,232,600	28,600	456,400	15,718,400	4,173,000	11,545,400	32
1882–'83	14,000,200	28,400	469,900	14,499,300	3,559,300	10,940,000	29
1883–'84	14,560,000	27,200	500,100	15,088,100	3,447,100	11,641,600	32
1884–'85	14,859,600	30,700	1,148,200	16,039,200	3,405,700	12,733,500	34

* For spirituous liquors either exported or used for technical purposes.

	Marks.
Tax	
Transit duties	
Custom duties	62,435,500
Total	

PRODUCTION OF BEER.

Last year, like its predecessor, was favorable to the brewing industry. In fact it is noticeable that while many branches of industry are suffering and complaining, beer brewing holds its own in the Empire with characteristic tenacity. The prices ot raw material were throughout lower than in the preceding years, and Germany's exports of beer show again an increase.

The prices for hops were, according to quality, 50 to 100 marks per 1 cwt. lower than in the preceding year, so that best Bavarian sorts sold at 150 to 200 marks only, and the best (Saatz) Bohemian hops at 200 to 240 marks per cwt. The better yield of the hops harvest in 1885 caused a further fall of hop prices. While, on a seven years' average, Germany harvested only 23,183 tons (1 ton=22 cwt.); it produced in 1885, 33,201 tons.

The crop of 1886 is estimated at a yield of 400,000 cwt. or 20,000 tons; but it is expected that the produce of the European continent will cover the quantity of hops needed. Otherwise the United States, provided a good crop would have been harvested, may have found here a good market.

In 1885 Germany imported of hops 1,384,900 kilograms, almost exclusively from Austria, viz, 1,363,000 kilograms, while it exported 12,672,700 kilograms.

	Kilograms.
Great Britain	3,893,660
Belgium	1,443,400
France	1,617,200
Russia	1,024,800
United States	554,700

Barley prices may be seen from Exhibit A, and amount of exports and imports from Exhibits CC and DD.

K.—*Quantity of beer produced within that portion of the Empire (exclusive of Bavaria, Wurtemberg, and Alsace-Lorraine) which has a brewing-tax system in common.*

[Ton = 22 cwt. 1,000 hectoliters = 2,200 gallons. Kilogram = 2.2 pounds. Liter = 1.76 pints.]

Fiscal year.	Quantity of beer produced.		To obtain 1 hectoliter of beer there were used together, with each other, on an average, of—	
	Breweries in operation.*	Breweries working for trade.	Grain.	Substitutes.
			Tons.	*Tons.*
1880–'81	11,564	10,374	430,794	2,139
1881–'82	11,266	10,068	430,100	2,282
1882–'83	10,921	9,797	446,928	2,261
1883–'84	10,703	9,625	472,573	2,466
1884–'85	10,520	9,461	493,211	2,843

L.—*Manner and extent of brewing within that portion of the Empire (exclusive of Bavaria, Wurtemberg, Baden, and Alsace-Lorraine) which has a brewing-tax system in common.*

[Breweries that were in operation.]

Fiscal year.	Chiefly manufactured.			
	Upper fermented beer.		Under fermented beer.	
	For trade.	For own private consumption.	For trade.	For own private consumption.
1880–'81	7,142	1,189	3,232	1
1881–'82	6,808	1,197	3,260	1
1882–'83	6,571	1,111	3,238	1
1883–'84	6,454	1,077	3,171	1
1884–'85	6,369	1,051	3,092	1

Fiscal year.	Paid brewing tax.							
	Up to 15 marks ($3.57).	More than 16 to 60 marks ($3.08 to $14.28).	61 to 300 marks ($14.51 to $71.40).	301 to 600 marks ($71.63 to $142.80).	601 to 1,500 marks ($143.03 to $357).	1,501 to 6,000 marks ($357.23 to $1,428).	6,001 to 15,000 marks ($1,428.23 to $3,570).	More than 15,000 marks ($3,570).
1880–'81	2,289	1,114	2,641	1,507	1,872	1,582	373	186
1881–'82	2,083	1,085	2,609	1,460	1,877	1,587	376	189
1882–'83	1,955	1,024	2,509	1,432	1,833	1,577	392	199
1883–'84	1,948	1,004	2,353	1,398	1,769	1,609	403	219
1884–'85	1,894	958	2,228	1,350	1,825	1,622	400	243

M.—*Comparative statement showing the total beer production in the German Empire.*

[1,000 hectoliters = 2,200 gallons. Liter = 1.76 pints.]

Fiscal year.	Beer produced.				
	Bavaria.	Wurtemberg.	Baden.	Alsace-Lorraine.	The remainder of the German Empire.
	Hectoliters.	*Hectoliters.*	*Hectoliters.*	*Hectoliters.*	*Hectoliters.*
1880–'81	11,826,800	3,396,300	1,155,500	982,700	21,136,000
1881–'82	12,341,600	3,247,700	1,188,800	941,400	21,316,000
1882–'83	12,112,600	3,041,900	1,167,200	815,600	22,113,200
1883–'84	12,265,400	3,083,800	1,220,700	823,300	23,391,900
1884–'85	12,608,500	3,027,600	1,235,800	801,700	24,613,400

Fiscal year	Amount per capita.				
	Bavaria.	Wurtemberg.	Baden.	Alsace-Lorraine.	In the remainder of

N.—*Amount of brewing tax collected in the different brewing-tax territories of the German Empire.*

Fiscal year.	Bavaria.		Wurtemberg.		Baden.		Alsace-Lorraine.		Remainder of the German Empire.	
	Gross receipts.	Tax per hectoliter.	Gross receipts.	Tax per hectoliter.	Gross receipts.	Tax per hectoliter.	Gross receipts.	Tax per hectoliter.	Gross receipts.	Tax per hectoliter.
		Cents.		*Cents.*		*Cents.*		*Cents.*		*Cents.*
1880–'81	$7,343,700	0.62	$1,372,800	0.40	$734,200	0.63	$516,800	0.52	$4,163,000	0.20
1881–'82	7,697,000	0.62	1,782,800	0.45	905,400	0.76	494,300	0.52	4,184,600	0.20
1882–'83	7,481,800	0.61	1,719,900	0.56	888,900	0.76	428,900	0.52	4,311,800	0.19
1883–'84	7,597,500	0.61	1,743,400	0.56	929,700	0.76	433,900	0.52	4,557,900	0.19
1884–'85	7,800,600	1.42	1,728,100	0.86	941,200	0.59	423,200	0.27	4,763,000	0.14

BEET SUGAR.

In my report No. 206, dated November 5, 1886, I reported fully upon the critical condition of the sugar industry of this country.

By an act approved June 1, 1886, relating to sugar taxation, a new classification of sugar and a new method of collecting tax on beet sugar (equaling a reduction of export bounties) was introduced.

Section 1 provides that beet-sugar tax of raw beets for manufacturing them into sugar shall be collected at a rate of 1.70 marks (40 cents) per 100 kilograms.

Section 2 provides that for sugar either exported or warehoused in bonded warehouses or private transit store-houses, provided that such quantity warehoused is not less than 500 kilograms, a bounty shall be granted at the following rates per 100 kilograms:

Kind of sugar upon which bounty is paid.	Amount.	Equivalent in United States money.
	Marks.	
(*a*) For raw sugar of at least 90 per cent. polarization and for refined sugar of at least 90, but not exceeding 98 per cent. polarization:		
(1) From August 1, 1886, to September 30, 1887	18.00	$4 28
(2) From October 1, 1887	17.25	4 16
(*b*) For candy and for sugar in white, full, hard loaves, lumps, tablets, cubes, &c., of at least 99½ per cent. polarization:		
(1) For the former period	22.20	5 28
(2) For the latter period	21.50	5 11
(*c*) All other hard sugar, not otherwise provided for, as well as for all white dry sugar (containing no more than 1 per cent. water) in crystals, also pulverized &c., of at least 98 per cent. polarization:		
(1) For the former period	20.80	4 95
(2) For the latter period	20.15	4 80

Section 3 gives owners of beet-sugar works—for the payment of the [illegible] beets upon security—a credit for a term (as

O.—*Beet-sugar production in the German Zollverein, years* 1880–'81 *to* 1884–'85.

[Ton = 22 cwt. Pound = ½ kilogram. 100 kilograms = 2.2 cwt.]

Year.	Factories in operation.	Factories obtaining juice by—		Beets worked.	Produced by the factories.		Quantities obtained.		
		Diffusion.	Pressing, centrifugal filter maceration.				Filling mass.	Raw-sugar products of all kinds.	Molasses.
				Tons.	*Tons.*	*On acres.*	*Tons.*	*Tons.*	*Tons.*
1880–'81	333	309	24	6, 322, 203	3, 871, 679	296, 077	739, 336	555, 915	164, 984
1881–'82	343	324	19	6, 271, 948	3, 431, 754	303, 140	774, 004	599, 722	150, 813
1882–'83	358	343	5	8, 747, 154	4, 448, 632	323, 135	1, 097, 508	835, 165	196, 305
1883–'84	376	368	8	8, 918, 130	4, 205, 064	352, 107	1, 216, 879	940, 109	207, 978
1884–'85	408	402	6	10, 402, 688	4, 936, 246	370, 690	1, 448, 619	1, 123, 030	259, 700

Year.	Obtained from 100 kilograms of taxed beets.			Obtained from 100 kilograms.		Quantities of beets required to obtain 1 kilogram (=2.2 pounds) of raw sugar.
	Filling-mass.	From the filling-mass.		Raw sugar.	Molasses.	
		Raw sugar.	Molasses.			
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
1880–'81	25. 71	19. 35	5. 72	165. 41	49. 10	25. 01
1881–'82	27. 14	21. 03	5. 23	170. 45	42. 85	23. 01
1882–'83	27. 61	21. 01	4. 92	167. 42	39. 35	23. 03
1883–'84	27. 30	21. 08	4. 66	154. 50	34. 18	18. 98
1884–'85	30. 64	23. 73	5. 50	170. 54	39. 44	20. 37

TOBACCO CROP IN 1885–'86.

The number of tobacco planters in 1885–'86 was 175,215; in 1884–'85, 187,582; decrease, 12,367 tobacco; plantations 242,280, occupying an area of 19,528 hectares (1 hectare = 2½ acres), against 263,328 plantations (=21,090 hectares) in 1884–'85.

Years.	Yield.	Average price per 100 kilograms.	Total value.
	Kilograms.	*Marks.*	*Marks.*
1885–'86	38, 537, 947	75. 61	29, 139, 266
1884–'85	47, 192, 885	72. 50	34, 217, 572
Increase	.....	3. 11	.....
Decrease	8, 654, 938	.....	5, 078, 306

P.—*Revenues from customs and taxes levied upon tobacco within the German Zollverein.*

Harvest year (July 1 to June 30).	Tobacco-tax collected less drawbacks.	Tax on substitutes of tobacco	Duty of entry on tobacco.	Total amount of taxes and duties	Bounties on exportation.	Net proceeds of revenues from tobacco.

MINES AND MINING.

Q.—*Production of German mines, salt-works, and smelting-works, in the years* 1884 *and* 1885.

[Ton = 22 cwt. Kilogram = 2.2 pounds.]

Product.	Quantity.		Value.		Average price per ton.	
	1884.	1885.	1884.	1885.	1884.	1885.
Products of mines.						
Mineral, coal, and bitumen:	*Tons.*	*Tons.*				
Stone coal	57,233,875	58,293,873	$71,110,000	$72,072,000	$1 24	$1 23
Brown coal	14,857,879	15,267,477	9,404,000	9,570,000	63	62
Asphaltum	41,139	45,412	55,000	60,000	1 34	1 32
Naptha	6,490	5,815	131,000	112,000	20 21	19 26
Mineral salts:						
Rock salt	344,797	377,491	462,000	465,000	1 34	1 23
Kainit	203,120	242,973	688,000	885,000	3 38	3 61
Other potassic salts	766,076	678,692	1,798,000	1,764,000	2 34	2 60
	8,922,454	9,061,988	7,681,000	7,978,000	99	88
Ores:	632,040	680,622	1,861,000	820,000	2 94	2 67
Iron ores	160,841	158,089	3,698,000	2,596,000	22 91	22 74
Zinc ores	593,331	621,080	4,319,000	4,575,000	7 28	7 37
Lead ores	25,103	23,668	1,145,000	992,000	45 61	41 91
Copper ores	150,130	115,516	70,000	223,000	2 06	1 92
Silver and gold ores						
Common iron pyrites						
Salts from aqueous solutions.						
Table salt (chloride of natrium)	462,921	461,260	2,921,000	2,794,000	6 30	6 06
Chloride of potassium	116,371	107,253	3,715,000	3,493,000	31 92	32 56
Glauber salt	45,489	47,530	426,000	423,000	9 27	8 90
Potassium-magnesium sulphate	25,765	27,208	309,000	338,000	11 99	12 40
Sulphate of alumina	15,070	19,447	352,000	433,000	23 24	22 25
Alum	4,164	4,130	135,000	133,000	32 34	32 27
Production of furnaces, foundries.						
Crude cast-iron	3,562,726	3,652,634	4,054,000	37,781,000	11 37	10 34
Zinc	109,614	113,356	7,066,000	6,991,000	64 46	61 67
Lead	71,518	72,943	3,562,000	3,595,000	49 81	49 28
Copper	18,750	19,419	5,387,000	4,657,000	287 28	239 82
	Kilogs.	*Kilogs.*				
Silver	208,946,199	230,338,514	7,432,000	7,845,000	*35 56	*34 06
Gold	554,964	610,550	369,000	406,000	*665 09	*664 86
	Tons.	*Tons.*			*Tons.*	*Tons.*
Tin	96	107	38,000	46,000	399.01	432.06
Sulphuric acids	312,501	318,909	3,212,000	2,987,000	10.27	9.36
Species of pig-iron:						
Foundry-iron	378,601	446,256	4,812,000	5,041,000	12.73	11.29
Ingot-iron	1,210,353	1,300,179	14,167,000	13,752,000	11.70	10.57
Forge-iron	1,928,392	1,856,611	20,394,000	17,768,000	10.57	9.57
Cast ware of first smelting	32,032	36,810	1,999,000	1,064,000	31.17	28.88
Scrap-iron and grains of pig-iron	13,348	12,778	170,000	156,000	12.72	12.22
Pig-iron manufactured.						
Cast iron of second smelting	646,073	662,012	27,941,000	26,163,000	42.20	40.49
Wrought iron and steel	1,403,047	1,471,189	46,762,000	40,425,000	31.78	28.80
Ingot-iron (including crucible cast-steel)	1,194,968	1,133,140	39,273,000	36,750,000	34.66	30.83

* Per kilogram.

R.—*Revenues from salt in the German customs territory.*

	Net proceeds.	Salt used for purposes exempt from tax.	
		Agricultural.	Industrial.
			In works	In other

The production of German high furnaces in blast increased again in 1885, causing a steady fall of prices. In some districts, as in the Siegerland, best puddling and Bessemer crude iron, which constituted in former years the broad bases of the Rhenish-Westphalian iron and steel production, is, to a great extent, displaced by Spanish ores, worked into superior Bessemer crude iron by the application of Thomas Gilchrist's dephosphorizing process and the Martin process.

The German works have made use of these processes with remarkable energy. A Düsseldorf report states that in the total production of Thomas steel of about 960,000 tons, Germany takes the lion's share of 600,000 tons.

A great demand from America for special kinds of iron (containing a high amount of manganese) caused—but in this branch only—the prices to rise from 62 to 68 marks per ton.

Prices for other kinds of pig-iron continued to fall during the whole of 1885.

It would be a useless repetition to state here again how production exceeded demand. This applies also to business done by rolling-mills and other branches of iron works; hence, a general movement for limitation of production by means of conventions.

Lead, after a continuous decline in price, experienced, for the first time in 1885, a slight rising. Prices went up from 19.15 to 22 marks per 100 kilograms, delivered at the works.

Prices of copper, a paper says, decline under the influence of new American copper mines, and meets a rather diminished demand in the market.

Coal prices declined in 1884 on account of the mutual competition of the coal mines themselves to such an extent that producers recognized the necessity to fix prices by conventions, which was, indeed, concluded and took effect on the 1st day of July, 1885. They succeeded at least thereby to stop a further decrease of prices, but the principal cause of unprofitableness of coal mines is found in the circumstance that branches of industry using largest amounts of coal suffer themselves of depression of business.

In Rhineland and Westphalia a coal exportation union has been formed by a number of miners to establish coal stations at remote places abroad; for instance, on St. Vincent, of the Cape Verde Islands. It is expected that the new subsidized steamship lines will necessitate a great development of coal exportation.

FOUNDRIES, BOILER, MACHINE, AND ENGINE WORKS.

This sphere of industrial activity enjoyed in recent years the great advantage of deriving its raw material or half-manufactured material at unusually low prices. Further, these branches especially have at their command a yearly growing increase of technically well-trained engineers, attributable to a superior system of special industrial (polytechnical, &c.) schools. A French paper says in this respect:

And, moreover, continually new specialists make their appearance, who, owing to a progressive subdivision of labor, furnish superior

S.—*Letters patent granted for inventions and designs in the years 1877 to 1885.*

Year.	Patents granted.	Designs.		
		Plastic.	Surface.	Total.
1876	190	2,660	10,099	12,798
1877	4,200	8,343	45,125	33,466
1878	4,410	9,679	40,353	50,032
1879	3,966	12,560	37,251	49,811
1880	4,389	13,856	33,784	47,640
1881	4,131	14,943	36,135	51,078
1882	4,848	15,088	34,517	49,605
1883	4,450	16,248	38,009	54,257
1884	4,018	22,124	45,765	67,889
1885		23,319	49,808	73,121

T.—*Letters patent for inventions granted and expired in the years 1877 to 1885 (according to kind of inventions).*

Kind of inventions.	Patents granted.	Patents expired.	In force at the close of 1885.
Ore-dressing	106	64	42
Baking	134	92	42
Clothing industry	185	124	61
Illumination	642	488	164
Mining	202	208	74
Peer, brandies	690	448	292
Blates and wires	170	112	58
Bleaching, dyeing	642	430	212
Bristle articles	97	60	37
Burning-stuffs	186	100	86
Book-binding	268	185	83
Chemical apparatus	362	192	170
Steam-boilers	878	491	327
Steam-engines	644	439	205
Printing	514	313	201
Manure	64	40	24
Ice-making	108	67	41
Production of iron	265	175	90
Tramways	477	303	134
Railroading	1,176	806	370
Electrical apparatus	1,086	621	465
Dye-stuffs	406	196	210
Grease industry	149	85	64
Fire places	373	249	124
Plaiting-machines	422	274	148
Gas-making	521	331	190
Blast	200	129	71
Tanning	118	68	20
Spinning-fibers	94	66	28
Hygiene	418	314	104
Foundry	176	92	84
Glass	161	112	49
Traveling-effects	403	331	72
Domestic implements	1,341	1,053	288
	195	109	66

Kind of inventions.	Patents granted.	Patents expired.	In force at the close of 1885.
Machine parts	1,142	800	342
Metallurgy:			
Chemical	81	50	31
Mechanical	1,067	661	406
Mills	687	482	205
Musical instruments	586	395	191
Sewing-machines	541	293	248
Articles of food	176	122	54
Paper articles	206	132	74
Paper manufacture	273	142	131
Harness	135	110	25
Photography	136	95	41
Presses	196	114	82
Pumps	406	283	123
Governors	124	84	50
Life saving	183	128	58
Salt works	32	90	12
Saddlers' works	498	372	126
Ship-building	274	194	80
Butchers' works	108	85	23
Grinding	96	70	26
Locksmiths' work, tools	552	410	142
Tailors' works	175	149	46
Writing and drawing material	396	306	90
Shoes and boots	271	190	81
Weapons	537	328	214
Rope-making	19	11	8
Signal service	115	91	24
Potash, soda	243	141	102
Spinning	490	304	186
Sport	500	404	96
Explosive stuffs	118	86	32
Tobacco	125	91	34
Clayware	555	368	187
Transportation	191	107	84
	367	167	100
			92

Not only the usefulness of an article, but also its artistic character has of late years been cultivated in this country with special care under the supervision of the German Government. The progress in art industry can be seen in every store in passing through the larger cities of Germany. This progress must be ascribed to the action of the German design protection act, enabling the poorest inventor to secure the protection of the production of his genius.

While our country collects for every single design (1) $10 on filing an application for a design patent for three years, (2) $5 on issuing a design patent for seven years, and (3) $20 on issuing a design patent for fourteen years, the Germans can have protected, upon one application, fifty designs (or models, if not exceeding 10 kilograms in weight) at the following rates: (1) 1 mark (23 cents) for one year in the first three years; (2) if a protection of a longer duration is sought, for every additional year up to ten years, 2 marks (47 cents); (3) in case of fifteen years, for every additional year after ten, 3 marks (71 cents).

In gold and silver articles business is said to have taken a new start, especially at Berlin, where skilled jewelers are much in demand. The weekly average wages for a journeyman rose from 18 marks in 1885 to 21 marks in 1886. The yearly turn-over in jewels in Berlin alone is estimated at 10,000,000 marks, and exports in these articles increase.

Especially articles rich in forms are manufactured at very reasonable prices. The brisk intercommunication with foreign countries made manufacturers familiar with the taste of other nations. The manufacture of gold articles is much influenced by a new act, taking effect in 1888, providing for stamping the fineness or standard on the articles made of precious metals, so that, when smelted, they must have the same fineness as the official stamp indicated.

PORCELAIN.

Porcelain shows likewise progress in its superior and artistic workmanship, rivaling now with the industry of Belgium. The Royal Porcelain Manufactory sets a good example. Great varieties of forms and styles, refined taste, and higher perfection of coloring and gilding are characteristic qualities of their productions. Importation of china from France has nearly ceased. Marvelous designs of porcelain tablets (for paneling the walls of cabins and saloons of the newly-equipped steamship Bavaria, belonging to the subsidized steamship line) are at present exhibited in the windows of that factory and attract the eyes of passers-by.

GLASS ARTICLES.

Business in glass articles is said to be improving. Sales in window-glass are very brisk, owing to much building activity. In articles of an inferior quality an overproduction is likewise noticeable, for which a market is sought in China and Japan. High duties have debarred, also, in this instance, the importation of foreign articles.

TEXTILE INDUSTRY.

To the few industrial branches which are reported to be in a comparatively favorable condition must be mentioned some lines in [illegible] dustry. Seldom has an ind[illegible]

articles of that kind imported for infringement on his patent. Some of the large Berlin manufacturers of tricots tried to get over the obstacle by paying a royalty to the patentee. A report of recent date states, however, that the United States, England, and others now purchase large quantities from German tricot factories, chiefly located at Berlin, Chemnitz, and in South Germany. Notwithstanding this, prices are said to yield only a moderate profit.

A great activity shows itself also in the manufacture of carpets, though in design and beauty American carpets surpass the German article. In some cities of Germany new carpet factories are building. But as in other lines of business, success challenges competition; competition again entails overproduction, and this makes profit impossible. This is true also in regard to carpet manufacturing. Imports of foreign carpets experience likewise a steady decline.

WOOL INDUSTRY.

A considerable improvement set in about the middle of the year 1886, when a rapid rise of wool prices surprised the commercial world. Their effect consisted in brisker returns of woolen articles, and increased exportation of woolen piece goods (woolen cloths, plushes, velveteens) as well as of woolen trimmings, and button-makers' articles followed. In woven (long) shawls, hosiery, and fancy articles, business was, on the whole, rather dull.

LINOLEUM.

The manufacture of linoleum is about to get a footing in Germany. At present there are no more than three factories, though the article has been made in England for about twenty years. Consumption of this article increases in this country.

German architects, recognizing it to be a good, durable stuff, continue to find new application for it every day. The practice is now much in vogue, in rooms of new buildings, intended for stores, offices, workshops, restaurants, &c., first simply to lay a cheap plaster floor (cement or gypsum) and thereupon to put a layer of linoleum, thus entirely dispensing with a wooden floor. Thus, it is stated, a floor is made which in its massive underground is impermeable to both vermin and moisture. Such a cover of linoleum takes the place and has the advantages of a carpet, and can be made at cheaper rates than wooden floors.

RUBBER ARTICLES.

The manufacture of rubber articles is still very active. Several works were compelled to extend working time. Demand for rubber increases daily, and there is hardly an industry which nowadays does not try to make rubber, for its many good physical properties, serviceable. Finished rubber articles have experienced a rise of 10 to 15 per cent.

PAPER.

European states, Germany possesses by far the great- [illegible] in France, 361 in Great [illegible] of

FISHERIES.

Nothing is worth reporting at this time, except that some efforts are made to encourage more than heretofore high-sea fishing.

GERMAN MERCHANT MARINE.

U.—*Number, age, tonnage, material, &c., of German ships January* 1, 1886.

Items.	Sailing vessels.			Steamers.			Total.		
	No. of ships.	Registered tons, net.	No. of crew.	No. of ships.	Registered tons, net.	No. of crew.	No. of ships.	Registered tons, net.	No. of crew.
Baltic coast	1,283	298,569	10,209	327	122,797	4,056	1,610	421,366	14,265
German Ocean coast	2,188	563,275	14,716	337	297,808	9,950	2,525	861,083	24,666
Total	3,471	861,844	24,925	664	420,605	14,006	4,135	1,282,449	38,931
Age.									
Under 1 year	39	13,318	309	22	8,182	293	61	21,500	602
1 to 3	124	40,022	925	144	100,601	2,955	268	140,623	3,880
3 to 5	91	25,052	587	133	121,528	3,359	224	146,580	3,946
5 to 7	131	26,677	776	61	32,600	959	192	59,277	1,735
7 to 10	347	90,688	2,514	47	23,213	698	394	113,901	3,212
10 to 15	501	134,992	3,871	127	83,187	3,323	628	218,179	7,194
15 to 20	550	171,211	4,775	64	35,226	1,553	614	206,437	6,328
20 to 30	1,056	270,810	7,888	54	14,729	762	1,110	285,539	8,650
30 to 40	412	67,405	2,318	10	1,285	96	422	68,690	2,414
40 to 50	166	17,968	776	1	39	6	167	18,007	782
50 years and upwards	38	2,595	132	----	----	----	38	2,595	132
Age unknown	16	1,106	54	1	15	2	17	1,121	56
Total	3,471	861,844	24,925	664	420,605	14,006	4,135	1,282,449	38,931
Principal material.									
Iron	195	131,240	2,568	654	419,870	13,930	849	551,110	16,498
Hard wood	3,191	685,441	21,354	10	735	76	3,201	686,176	21,430
Soft wood	16	3,625	129	----	----	----	16	3,623	129
Hard and soft wood	60	34,477	738	--	-- --	----	60	34,477	738
Hard wood and iron	9	7,063	136	--	----	----	9	7,063	136
Total	3,471	861,844	24,925	604	420,605	14,006	4,135	1,282,449	38,931
Bolting and sheathing.									
With copper or metal bolts:									
Copper or metal sheathing	69	39,933	853	...	----	----	69	38,933	853
Without sheathing	22	5,711	196	----	----	----	22	5,711	196
With copper or metal bolts and zincked iron bolts:									
Copper or metal sheathing	487	239,946	5,935	1	19	5	488	239,965	5,940
Zinc sheathing	1	130	5	----	----	----	1	130	5
Without sheathing	49	13,978	437	----	----	----	49	13,978	457
With copper or metal bolts and unzincked iron bolts:									
Copper and metal sheathing	274	175,803	3,720	1	112	14	275	175,915	3,734
Without sheathing	144	40,550	1,354	--	----	----	144	40,550	1,354
With zincked iron bolts:									
Copper or metal sheathing	----	----	----	1	43	12	1	43	12
Zinc sheathing	8	2,545	78	...	----	----	8	2,545	78
Without sheathing	252	37,921	1,601	3	269	21	255	38,190	1,622
With zincked and unzincked iron bolts:									
Zinc sheathing	6	1,261	52	...	----	----	6	1,261	52
Without sheathing	131	22,722	951	...	----	----	131	23,722	931
With unzincked iron bolts:									
Zinc sheathing	15	3,408	124	...	----	----	15	3,408	124
Without sheathing	1,815	147,168	7,032	4	292	24	1,819	147,460	7,656
Bolting and sheathing unknown	3	528	19	...	----	----	3	528	19
Vessels entirely of iron	195	131,240	2,568	654	419,870	13,930			
Total									

V.—*Comparative statement showing the number of German merchant ships January 1, 1876–1886.*

Year.	Sailing vessels.			Steamers.			Total.		
	No. of ships.	Registered tons, net.	No. of crew.	No. of ships.	Registered tons, net.	No. of crew.	No. of ships.	Registered tons, net.	No. of crew.
1876	4,426	901,313	33,215	319	183,569	9,147	4,745	1,084,882	42,362
1877	4,491	922,704	33,255	318	180,946	8,589	4,809	1,103,650	41,844
1878	4,469	934,556	32,659	336	183,379	8,173	4,805	1,117,935	40,832
1879	4,453	949,467	32,362	331	179,662	7,616	4,804	1,129,129	39,978
1880	4,403	974,943	32,158	374	196,343	8,131	4,777	1,171,286	40,289
1881	4,246	965,767	31,003	414	215,758	8,657	4,660	1,181,525	39,660
1882	4,051	942,759	29,593	458	251,648	9,516	4,509	1,194,407	39,109
1883	3,855	915,446	28,094	515	311,204	10,937	4,370	1,226,650	39,031
1884	3,712	894,778	26,937	603	374,699	12,678	4,315	1,269,477	39,615
1885	3,607	880,345	26,014	650	413,943	13,897	4,257	1,294,288	49,911
1886	3,471	861,844	24,925	664	420,605	14,006	4,135	1,282,449	39,931

W.—*Number and wages of full sailors and apprentices engaged during the decade of 1876–1885.*

Year.	Full sailors.	Apprentices.	Average wages per month.		Year.	Full sailors.	Apprentices.	Average wages per month.	
			Full sailors.	Apprentices.				Full sailors.	Apprentices.
1876	12,625	2,520	$13 53	$5 57	1881	13,150	2,335	$10 26	$3 50
1877	12,544	2,545	13 52	4 49	1882	13,174	2,578	10 74	3 66
1878	12,180	2,260	12 19	4 21	1883	13,598	2,629	11 36	3 80
1879	12,642	2,359	10 38	3 57	1884	14,101	2,432	11 32	3 75
1880	13,004	2,556	10 23	3 58	1885	12,947	2,069	11 09	3 66

X.—*Account of the shipping employed in the trade of the German Empire, exhibiting the number and tonnage of vessels that entered inward and cleared outward in 1884.*

From and to what countries.	Entered.				Cleared.			
	With cargo.		In ballast or unloaded.		With cargo.		In ballast or unloaded.	
	No.	Reg. tons.	No.	Reg. tons.	No.	Reg. tons.	No.	Reg. tons.
German coasts	28,444	1,353,881	7,653	416,855	27,402	1,332,451	8,571	414,216
Russia	1,884	724,082	22	9,404	1,077	382,843	1,423	615,057
Sweden	2,462	368,146	106	37,221	1,476	294,829	1,426	363,069
Norway	1,310	305,767	34	6,746	539	136,567	722	168,076
Denmark	4,624	507,334	2,484	129,489	6,320	578,613	1,183	55,355
Heligoland	242	8,038	85	1,756	244	10,628	102	591
Great Britain	7,009	3,353,170	290	209,511	4,037	2,095,283	2,244	1,380,299
Holland	585	136,837	84	33,060	658	175,456	63	6,485
Belgium	180	76,622	29	15,747	231	109,320	9	6,066
	287	146,472	69	37,995	462	190,106	8	4,137
				1,349	184	104,883	5	1,502
						28,851	2	1,359
								845

X.—*Account of the shipping employed in the trade of the German Empire, &c.*—Continued.

From and to what countries.	Entered.				Cleared.			
	With cargo.		In ballast or unloaded.		With cargo.		In ballast or unloaded.	
Greenland	3	872	.....	.....	.....	.....	2	656
British North America, Atlantic coast	11	12,673	.....	.....	19	18,814	17	10,707
United States:								
Atlantic coast	941	1,182,832	.....	.....	690	987,376	24	17,389
Pacific coast	7	5,418	.....	.....	2	1,841	.....	.....
Mexico	83	35,270	.....	.....	39	23,706	4	1,159
Central America	10	5,333	.....	.....	9	2,740	.....	.....
West Indian Islands	209	121,089	.....	.....	70	54,593	5	2,034
South America, Atlantic coast north from Brazil	25	8,137	.....	.....	58	14,559	.....	.....
South America, in the south from Brazil	123	122,867	.....	.....	186	155,679	.....	.....
Chili	74	78,041	.....	.....	64	59,596	.....	.....
Other South America, Pacific coast	70	65,347	.....	.....	74	62,364	.....	.....
Egypt, Mediterranean coast	156	129,104	.....	.....	27	15,268	.....	.....
Other Africa, Mediterranean coast	2	1,075	.....	.....	1	179	.....	.....
Cape Colony, with Natal	5	4,228	.....	.....	2	1,743	.....	.....
Africa:	3	5,748	.....	.....	5	10,013	.....	.....
Atlantic coast	65	50,415	.....	.....	87	60,999	3	2,181
Red and Indian Sea coasts	9	3,396	.....	.....	20	15,724	.....	.....
Asia, Mediterranean and Black Sea coasts	6	3,481	.....	.....	2	254	.....	.....
Other anterior Asia	1	1,456	.....	.....	.....	.....	.....	.....
East Indies, with Indian Islands	134	168,593	.....	.....	20	13,296	1	339
China	15	13,975	.....	.....	19	20,230	.....	.....
Japan	17	23,167	.....	.....	28	41,135	.....	.....
Other Asia	.....	.....	.....	.....	7	4,491	.....	.....
Australia and islands in the Pacific Ocean	24	19,083	.....	.....	51	44,804	.....	.....
Total not European countries	1,993	2,061,543	.....	.....	1,480	1,609,401	56	34,474
Great total	49,452	9,319,909	10,920	900,261	44,339	7,133,357	15,837	3,055,199

Y[a].—*Account of the trade in the German ports in the year* 1884.

[No later official returns for Germany published.]

Items.	Entered.				Cleared.			
	With cargo.		In ballast or unloaded.		With cargo.		In ballast or unloaded.	
	No.	*Reg. tons.*	*No.*	*Reg. tons.*	*No.*	*Reg. tons.*	*No.*	*Reg. tons.*
Total tonnage of the German Empire employed in the foreign and coasting trade	49,452	9,319,900	10,920	900,261	44,339	7,133,357	15,837	3,055,199
Steamers	19,231	7,086,730	1,407	572,483	16,640	3,463,233	3,968	2,197,428
German coasting trade	28,444	1,353,881	7,653	416,855	27,402	1,332,451	8,571	[illegible]
Steamers	7,807	788,707	749	205,131	[illegible]	[illegible]	[illegible]	[illegible]
Trade between German and European not Ger-								

Y[b].—*Vessels entered and cleared in* 1884, *arranged by flags.*

Flag.	Entered.				Cleared.			
	With cargo.		In ballast or unloaded.		With cargo.		In ballast or unloaded.	
	No.	*Reg. tons.*	*No.*	*Reg. tons.*	*No.*	*Reg. tons.*	*No.*	*Reg. tons.*
Russian	455	104, 622	10	5, 352	201	51, 628	274	62, 159
Swedish	2, 016	402, 010	97	24, 209	1, 199	288, 780	913	135, 960
Norwegian	1, 361	452, 169	70	21, 454	770	272, 142	653	191, 728
Danish	3, 900	570, 185	1, 644	69, 207	4, 201	506, 622	1, 298	129, 874
British	4, 604	2, 898, 965	352	216, 821	2, 901	1, 707, 321	2, 021	1, 396, 491
Dutch	637	131, 889	87	9, 915	558	119, 895	145	20, 924
Belgian	12	9, 740	1	335	11	7, 947	3	*2, 692*
French	170	111, 827	9	7, 982	152	104, 451	22	12, 382
Spanish	72	44, 141	25	15, 014	92	57, 249	6	1, 687
Italian	52	32, 840	.....	.....	16	9, 294	34	22, 877
Austro-Hungarian	20	10, 277	.....	.....	13	6, 713	6	*3, 038*
Greek	19	20, 406	.....	.....	1	1, 195	18	19, 211
Roumanian	2	1, 801	.....	.....	.....	.....	2	1, 801
North American	14	13, 357	.....	.....	12	10, 744	3	2, 263
Other	3	1, 979	.....	.....	1	324	1	339
Total German vessels	36, 115	4, 513, 692	8, 625	529, 972	34, 211	3, 989, 052	10, 438	1, 051, 773
Steamers	11, 886	3, 255, 280	852	202, 686	11, 140	2, 804, 819	1, 547	672, 281
Total foreign vessels	13, 337	4, 806, 208	2, 295	370, 289	10, 128	3, 144, 305	5, 399	2, 003, 426
Steamers	7, 343	3, 861, 430	555	309, 799	5, 500	2, 658, 469	2, 421	1, 525, 147

Z.—*Kind and number of casualties having occurred near the German coasts in the year* 1885.

Kind of casualties.	Casualties.	Tonnage.	Crew and passengers.	Vessels lost.	Lives lost.	Casualties by flag.									
						German.	Russian.	Swedish.	Norwegian.	Danish.	British.	Dutch.	French.	Italian.	Greek.
Stranded	69	27, 539	735	24	14	38	3	4	1	2	15	4	...	1	1
Capsized	11	65	33	1	4	11	...	...	...	...	...	...	...	...	...
Sunk	15	749	33	8	6	15	...	...	...	...	...	...	...	1	...
Collided	100	36, 572	655	2	...	61	1	2	6	1	24	2	...	...	...
Other casualties	25	8, 611	249	4	3	29	1	...	3	1	2	...	1	...	...
Total	220	73, 536	2, 705	39	27	145	5	6	10	4	41	6	1	2	1

Total German ships reported lost in 1885, 151, with 38,546 tonnage.

GERMAN IMPORTS AND EXPORTS.

Special commerce (*i. e.*, exclusive goods in transit) are shown in Exhibits AA and BB. Exhibits CC and DD are comparative tables, showing volume and value of chief articles imported into and exported from Germany during the years 1880–'85. Exhibit EE shows the volume of German imports from and exports to foreign countries of the world in

lues of merchandise imported into the German customs territory during calendar year 1885 (exclusive of goods in direct transit and goods refined and finished) for consumption—special commerce.

[Ton = 22 cwt. + denotes increase; − denotes decrease.]

Articles.	Goods imported for consumption.		Increase and decrease in 1885 as compared with 1884.	Value of such imports.				Increase and decrease in 1885 as compared with 1884.	Value of imports in 1885, same average prices as 1884.	Increase and decrease in 1885 as compared with 1884, the average price of 1884 being taken for 1885.
				1884.		1885.				
	1884.	1885.		Total value.	Percentage of total value.	Total value.	Percentage of total value.			
.....	*Tons.* 205, 940	*Tons.* 166, 826	*Tons.* − 39, 114	$43, 792, 000	5. 60	$35, 694, 000	5. 02	−$8, 097, 000	$37, 103, 000	− $6, 688, 000
articles of consumption.....	3, 732, 906	3, 244, 358	−488, 548	205, 148, 000	26. 24	178, 112, 000	25. 03	−27, 036, 000	197, 419, 000	− 7, 729, 000
.....										
e, potatoes	288, 896	266, 275	+ 37, 379	29, 266, 000	3. 74	29, 484, 000	4. 14	+ 218, 000	36, 238, 000	+ 6, 972, 000
grain and baker's ware	2, 963, 387	2, 451, 033	−512, 348	95, 128, 000	12. 17	71, 882, 000	10. 10	−23, 246, 000	79, 015, 000	− 16, 113, 000
bles	65, 775	32, 398	− 33, 377	4, 586, 000	0. 39	2, 108, 000	0. 30	− 2, 478, 000	2, 299, 000	− 2, 287, 000
d spices	177, 729	189, 509	+ 11, 780	10, 311, 000	1. 82	11, 444, 000	1. 61	+ 1, 133, 000	10, 932, 000	+ 621, 000
tea.....	37, 561	35, 586	− 1, 975	3, 764, 000	0. 45	3, 787, 000	0. 53	+ 23, 000	3, 916, 000	+ 152, 000
ses, sirup.....	126, 226	134, 951	+ 8, 725	32, 040, 000	4. 10	29, 681, 000	4. 17	− 2, 359, 000	34, 240, 000	+ 4, 559, 000
quors, mineral waters, table oils.	6, 906	7, 139	+ 233	525, 000	0. 07	544, 000	0. 08	+ 19, 000	544, 000	+ 19, 000
erves	89, 399	86, 496	− 2, 903	14, 646, 000	1. 87	12, 565, 000	1. 77	− 2, 081, 000	13, 612, 000	− 1, 034, 000
obacco manufactures	1, 651	1, 743	+ 92	640, 000	0. 08	719, 000	0. 10	+ 79, 000	682, 000	+ 42, 000
	35, 382	39, 228	+ 3, 846	14, 242, 000	1. 82	15, 897, 000	2. 23	+ 1, 655, 000	15, 940, 000	+ 1, 698, 000
not for food.....	388, 570	361, 844	− 26, 726	21, 594, 000	2. 76	19, 386, 000	2. 72	− 2, 208, 000	20, 511, 000	− 1, 083, 000
materials.....	578, 232	544, 794	− 33, 438	17, 213, 000	2. 20	11, 877, 000	1. 67	− 5, 336, 000	16, 281, 000	− 932, 000
.....	6, 018, 103	6, 338, 489	+320, 386	9, 969, 000	1. 28	10, 820, 000	1. 52	+ 851, 000	10, 537, 000	+ 568, 000
products of chemical industry.	1, 704, 068	1, 403, 434	−297, 639	93, 067, 000	11. 91	83, 364, 000	11. 71	− 9, 703, 000	93, 857, 000	+ 790, 000
lphur, &c.....	444, 283	402, 529	− 41, 754	20, 212, 000	2. 59	15, 323, 000	2. 15	− 4, 889, 000	17, 762, 000	− 2, 450, 000
colors, &c	196, 199	210, 889	+ 14, 685	17, 797, 000	2. 28	18, 525, 000	2. 60	+ 728, 000	19, 095, 000	+ 1, 298, 000
ring-stuffs	316, 706	27, 085	−289, 621	2, 611, 000	0. 33	1, 449, 000	0. 20	− 1, 162, 000	1, 649, 000	− 962, 000
cinal purposes, sponges	7, 231	8, 728	+ 1, 497	7, 958, 000	1. 02	6, 204, 000	0. 87	− 1, 754, 000	9, 186, 000	+ 1, 228, 000
....	127, 613	107, 038	− 20, 575	5, 558, 000	0. 71	5, 357, 000	0. 75	− 811, 000	5, 438, 000	+ 505, 000
er oils, &c	497, 112	534, 163	+ 37, 051	31, 353, 000	2. 75	21, 182, 000	2. 98	− 171, 000	23, 196, 000	+ 1, 843, 000
lakes, lutes, glutens.....	6, 827	6, 506	− 321	1, 381, 000	0. 18	1, 230, 000	0. 17	− 151, 000	1, 325, 000	− 56, 000
s, not for food.....	99, 378	101, 307	+ 1, 929	14, 428, 000	1. 89	12, 916, 000	1. 82	− 1, 512, 000	14, 597, 000	+ 169, 000
perfumes	1, 962	1, 989	+ 27	718, 000	0. 09	573, 000	0. 08	− 145, 000	729, 000	+ 11, 000
....	1, 490	514	− 976	457, 000	0. 06	169, 000	0. 03	− 288, 000	174, 000	− 273, 000
ared	2, 267	2, 691	+ 424	594, 000	0. 08	435, 000	0. 06	− 158, 000	698, 000	+ 108, 000

alues of merchandise imported into the German customs territory during calendar year 1885, &c.—Continued.

[Ton = 22 cwt. + denotes increase; − denotes decrease.]

es.	Goods imported for consumption.		Increase and decrease in 1885 as compared with 1884.	Value of such imports.				Increase and decrease in 1885 as compared with 1884.	Value of imports in 1885, same average prices as 1884.	Increase and decrease in 1885 as compared with 1884, the average price of 1884 being taken for 1885.
				1884.		1885.				
	1884.	1885.		Total value.	Percentage of total value.	Total value.	Percentage of total value.			
ctures of stone and clay	*Tons.* 1,054,556	*Tons.* 1,010,258	*Tons.* − 44,298	11,372,000	1.45	12,232,000	1.72	+ 860,000	11,350,000	− 22,000
	884,704	861,991	− 22,713	7,999,000	1.02	8,933,000	1.26	+ 934,000	7,994,000	− 5,000
	17,169	14,786	− 2,383	828,000	0.10	933,000	0.13	+ 105,000	663,000	− 165,000
	145,919	126,004	− 19,915	1,092,000	0.14	773,000	0.11	− 319,000	1,064,000	− 28,000
	6,764	7,477	+ 713	1,453,000	0.19	1,593,000	0.22	+ 140,000	1,638,000	+ 185,000
factures of metal industry	1,388,001	1,346,081	− 41,920	31,103,000	3.98	40,474,000	5.69	+ 9,371,000	39,113,000	+ 8,010,000
	1,034,994	1,045,699	+ 10,705	8,622,000	1.10	13,335,000	1.88	+ 4,713,000	11,530,000	+ 2,908,000
	301,610	252,246	− 49,464	10,690,000	1.37	9,035,000	1.27	− 1,655,000	9,728,000	− 962,000
	30,206	28,147	− 2,059	1,823,000	0.33	1,695,000	0.24	− 128,000	1,687,000	− 136,000
cious; also coined	19,192	18,137	− 1,055	3,007,000	0.39	2,634,000	0.37	− 373,000	2,991,000	− 16,000
tals	1,712	1,771	+ 59	1,052,000	0.13	1,230,000	0.17	+ 178,000	1,084,000	+ 32,000
on, except machines and	287	181	− 106	5,909,000	0.76	12,545,000	1.76	+ 6,636,000	12,087,000	+ 6,178,000
ents	2,008,820	2,738,600	+729,780	30,451,000	3.90	34,733,000	4.88	+ 4,282,000	37,295,000	+ 6,844,000
er precious metals	1,946,647	2,683,935	+737,288	19,694,000	2.52	24,504,000	3.44	+ 4,810,000	27,088,000	+ 7,394,000
so coined	46,005	37,398	− 8,607	6,144,000	0.79	4,922,000	0.69	− 1,222,000	5,324,000	− 820,000
ufactures of the wood-cut-	16,168	17,267	+ 1,099	4,613,000	0.59	5,307,000	0.75	+ 694,000	4,883,000	+ 270,000
ustry	48,483	51,026	+ 2,543	3,211,000	0.41	3,058,000	0.43	− 153,000	3,244,000	+ 33,000
uilding-wood	42,547	45,534	+ 2,987	1,921,000	0.24	1,854,000	0.26	− 66,000	2,059,000	+ 138,000
ng materials	4,648	4,330	− 318	683,000	0.09	688,000	0.10	+ 4,000	638,000	− 45,000
and plaited ware	1,288	1,162	− 126	607,000	0.08	516,000	0.07	− 90,000	546,000	− 61,000
anufactures of the paper in-										
board										
paper and pasteboard										

and manufactures of the leather industry	77,716	81,271	+ 3,555	45,120,000	5.77	39,766,000	5.59	− 5,353,000	45,207,000	+ 87,000	
kins	69,958	72,996	+ 3,038	35,858,000	4.59	30,183,000	4.24	− 5,675,000	35,287,000	− 571,000	
ufactures	6,796	7,351	+ 555	5,601,000	0.72	5,809,000	0.82	+ 207,000	6,038,000	+ 437,000	
	898	864	− 34	3,544,000	0.45	3,667,000	0.52	+ 123,000	3,721,000	+ 177,000	
	64	60	− 4	117,000	0.01	107,000	0.01	− 9,000	115,000	− 2,000	
nd manufactures of the textile y	535,141	533,563	− 1,578	243,256,000	31.11	215,608,000	30.30	−27,648,000	235,501,000	− 7,755,000	
s, &c	10,539	12,419	+ 1,880	10,368,000	1.33	9,912,000	1.39	− 456,000	10,365,000	− 3,000	
rials	450,155	450,768	+ 613	128,606,000	16.45	113,372,000	15.93	−15,234,000	130,081,000	+ 1,475,000	
ls	61,191	59,915	− 1,276	78,844,000	10.09	67,414,000	9.47	−11,430,000	69,119,000	− 9,725,000	
s	1,539	792	− 747	336,000	1.04	187,000	0.03	− 179,000	177,000	− 159,000	
ir-cloths	1,015	921	− 94	583,000	0.07	449,000	0.06	− 134,000	533,000	− 50,000	
	9,684	7,638	− 2,046	14,459,000	1.85	13,682,000	1.92	− 777,000	14,609,000	+ 150,000	
button stuffs	133	132	− 1	409,000	0.05	395,000	0.06	− 14,000	419,000	+ 10,000	
eries, &c	60	57	− 3	210,000	0.03	175,000	0.02	− 35,000	186,000	− 24,000	
nderclothing	473	549	+ 76	7,127,000	0.91	7,645,000	1.08	+ 518,000	7,664,000	+ 537,000	
eathers, and flowers	241	263	+ 22	1,184,000	0.15	1,311,000	0.19	+ 127,000	1,321,000	+ 137,000	
	111	109	− 2	1,130,000	0.14	1,065,000	0.15	− 65,000	1,028,000	− 102,000	
manufactures of caoutchouc	4,233	3,829	− 404	6,446,000	0.82	5,726,000	0.80	− 720,000	5,879,000	− 567,000	
ads, leather and wax cloth	2,905	2,443	− 462	4,926,000	0.63	4,069,000	0.57	− 857,000	4,069,000	− 857,000	
aoutchouc	970	990	+ 20	719,000	0.09	846,000	0.12	+ 127,000	886,000	+ 167,000	
	358	396	+ 38	801,000	0.10	811,000	0.11	+ 10,000	924,000	+ 123,000	
holstered carriages, and fur-	1,613	805	− 808	146,000	0.02	208,000	0.03	+ 62,000	208,000	+ 62,000	
struments, and apparatus	40,332	38,073	− 2,259	11,286,000	1.44	10,461,000	1.47	− 8,824,000	10,849,000	− 437,000	
nts	337	388	+ 51	3,437,000	0.44	4,676,000	0.66	+ 1,239,000	3,667,000	+ 966,000	
nd fine arts	3,715	3,691	− 24	5,201,000	0.67	5,412,000	0.76	+ 824,000	5,045,000	− 156,000	
	17,787,766	17,867,330	+ 79,564	781,811,000	100	711,613,000	100	− 70,200,000	763,067,000	− 18,744,000	

es exported from the German customs territory during calendar year 1885 (*exclusive of goods in direct transit and goods refined and finished.—Special commerce*).

[Ton=22 cwt.; + denotes increase; − denotes decrease.]

	Goods exported.		Increase and decrease in 1885 as compared with 1884.	Value of such exports.				Increase and decrease in 1885 as compared with 1884.	Value of exports in 1885 priced as in 1884.	Increase and decrease in 1885, as compared with 1884, the exports of 1885 being valued at the same prices as in 1884.
				1884.		1885.				
	1884.	1885.		Total value.	Percentage of total value.	Total value.	Percentage of total value.			
	Tons. 223,678	*Tons.* 183,078	*Tons.* − 40,600	$35,416,000	4.68	$28,403,000	4.11	−$7,013,000	$29,991,000	− $5,425,000
	1,792,793	1,683,346	−109,447	111,134,000	14.28	98,516,000	14.20	−12,618,000	105,496,000	− 5,638,000
onsumption	58,794	57,672	− 1,122	13,254,000	1.70	12,007,000	1.73	− 1,247,000	13,408,000	+ 154,000
	249,888	198,140	− 51,748	6,699,000	0.86	3,934,000	0.57	− 2,765,000	4,624,000	− 2,075,000
	176,128	173,261	− 2,867	9,413,000	1.21	8,584,000	1.24	− 829,000	9,256,000	− 157,000
aker's ware	178,219	151,611	− 26,608	3,271,000	0.42	3,530,000	0.51	+ 259,000	2,800,000	− 471,000
	137,880	132,176	− 5,704	9,343,000	1.20	6,746,000	0.97	− 2,597,000	10,182,000	+ 839,000
	19,829	18,823	− 1,006	911,000	0.11	808,000	0.12	− 198,000	849,000	− 62,000
eral waters, table oils	689,212	635,328	− 53,882	45,756,000	5.88	40,373,000	5.82	− 5,383,000	39,257,000	− 6,499,000
	271,677	304,480	+ 32,803	18,910,000	2.43	19,053,000	2.74	+ 143,000	21,331,000	+ 2,421,000
	4,341	4,560	+ 219	1,440,000	0.19	1,262,000	0.18	− 178,000	1,512,000	+ 72,000
anufactures	6,825	7,302	+ 477	2,137,000	0.27	2,218,000	0.32	+ 81,000	2,275,000	+ 138,000
	103,368	101,863	+ 1,505	6,099,000	0.78	5,962,000	0.86	− 137,000	6,850,000	+ 751,000
ood	254,108	131,421	−122,687	4,573,000	0.59	3,194,000	0.46	− 1,379,000	3,549,000	− 1,024,000
als	9,886,111	10,021,460	−135,319	18,251,000	2.34	22,653,000	3.27	+ 4,402,000	18,450,000	+ 799,000
	465,083	479,682	+ 14,599	63,846,000	8.20	53,852,000	7.76	− 9,994,000	65,048,000	+ 1,202,000
ts of chemical industry	222,688	228,577	+ 5,889	16,676,000	2.14	9,544,000	1.38	− 7,132,000	14,956,000	− 1,720,000
	110,060	108,407	− 1,653	21,817,000	2.80	22,289,000	3.21	+ 472,000	22,136,000	+ 319,000
&c	18,687	28,162	+ 9,475	856,000	0.11	811,000	0.12	+ 45,000	840,000	− 16,000
s, &c	3,071	4,780	+ 1,703	5,770,000	0.74	5,959,000	0.86	+ 189,000	8,461,000	+ 2,691,000
tuffs	44,375	43,478	− 897	1,713,000	0.22	1,386,000	0.20	− 327,000	1,627,000	− 86,000
purposes, sponges	11,257	7,278	− 3,979	1,980,000	0.26	1,536,000	0.22	− 444,000	1,541,000	− 439,000
ils, &c	14,109	15,361	+ 1,252	2,255,000	0.29	2,021,000	0.29	− 234,000	2,357,000	+ 102,000
s, lutes, glutens	25,104	26,678	+ 1,574	4,297,000	0.55	3,735,000	0.54	− 562,000	4,464,000	+ 167,000
t for food	6,776	5,581	− 1,195	5,102,000	0.66	2,321,000	0.33	− 2,781,000	4,376,000	− 726,000
fumes	7,293	8,467	+ 1,174	2,832,000	0.36	3,727,000	0.54	+ 895,000	3,367,000	+ 535,000
d	1,663	2,913	+ 1,250	548,000	0.17	523,000	0.07	− 25,000	922,000	+ 374,000

and manufactures of stone and clay	2 124,494	2,111,732	− 12,762	28,157,000	3.62	24,980,000	3.60	− 3,177,000	28,616,000	+ 459,000
stones	1,345,316	1,335,836	− 9,480	9,267,000	1.19	8,035,000	1.16	− 1,232,000	9,476,000	+ 209,000
ina ware	35,189	34,195	− 994	1,827,000	0.24	2,021,000	0.29	+ 813,000	2,286,000	+ 459,000
	659,937	659,944	+ 7	8,634,000	1.11	7,231,000	1.04	− 1,403,000	8,776,000	+ 142,000
	84,052	81,757	− 2,295	8,428,000	1.08	7,693,000	1.11	− 835,000	8,078,000	− 350,000
nd manufactures of metal industry	3,127,631	3,003,473	−124,208	97,022,000	12.47	82,412,000	11.88	−14,610,000	93,607,000	− 3,415,000
	1,917,847	1,797,991	−117,856	2,456,000	0.32	2,426,000	0.35	− 30,000	1,677,000	− 779,000
not precious, also coined	412,686	394,207	− 18,479	13,021,000	1.67	11,997,000	1.73	− 1,024,000	12,821,000	− 200,000
ked metals	453,930	434,355	− 19,575	19,673,000	2.53	15,460,000	2.23	− 4,213,000	18,602,000	− 1,071,000
s of iron, except machines and struments	333,777	364,021	+ 30,244	38,235,000	4.91	36,445,000	4.39	− 7,790,000	37,828,000	− 407,000
of other precious metals	11,137	12,572	+ 1,435	7,952,000	1.02	8,804,000	1.27	+ 852,000	8,438,000	− 486,000
ls, also coined	304	327	+ 23	15,685,000	2.02	13,280,000	1.91	− 2,405,000	13,780,000	− 1,905,000
d manufactures of the wood-ing industry	650,596	603,863	− 43,733	24,657,000	3.17	24,700,000	3.56	+ 43,000	23,965,000	− 692,000
r, building wood	594,308	543,966	− 50,342	7,710,000	0.99	6,500,000	0.94	− 1,210,000	7,056,000	− 654,000
aiting materials	9,457	10,467	+ 1,010	1,845,000	0.24	2,706,000	0.39	+ 861,000	1,877,000	+ 32,000
cut and plaited ware	46,831	47,430	+ 599	15,102,000	1.94	15,493,000	2.23	+ 391,000	15,032,000	− 70,000
manufactures of the paper in-dustry	154,275	141,660	− 12,615	19,846,000	2.55	20,259,000	2.92	− 413,000	19,118,000	− 728,000
board	74,044	67,612	− 6,432	4,198,000	0.54	3,055,000	0.44	− 1,143,000	2,806,000	− 392,000
f pasteboard	67,784	61,383	− 6,401	10,507,000	1.35	12,226,000	1.76	− 1,719,000	10,057,000	− 450,000
	12,447	12,665	+ 218	5,141,000	0.66	4,978,000	0.72	− 163,000	5,255,000	+ 114,000
manufactures of the leather stry	32,690	30,622	− 2,068	60,667,000	7.80	52,132,000	7.51	− 8,535,000	57,409,000	− 3,258,000
	18,469	17,060	− 1,409	18,690,000	2.40	13,248,000	1.91	− 5,442,000	17,514,000	− 1,176,000
tures	7,170	6,903	− 267	9,944,000	1.28	9,693,000	1.40	− 251,000	9,900,000	− 44,000
	6,886	6,764	− 422	31,366,000	4.03	28,630,000	4.12	− 2,736,000	29,208,000	− 2,158,000
	165	195	+ 30	667,000	0.09	560,000	0.08	− 107,000	787,000	+ 120,000
manufactures of the textile	208,438	209,382	+ 944	231,645,000	29.77	209,116,000	30.14	−22,529,000	225,323,000	− 6,322,000
c	8,401	8,020	− 381	5,006,000	0.64	6,479,000	0.93	+ 1,473,000	4,569,000	− 437,000
s	111,432	115,115	+ 3,683	29,771,000	3.83	26,285,000	3.79	− 3,486,000	32,864,000	+ 3,093,000
	16,104	16,631	+ 527	27,397,000	3.52	22,263,000	3.21	− 5,134,000	23,466,000	− 3,931,000
oths	3,618	3,716	+ 98	788,000	0.10	805,000	0.12	+ 17,000	806,000	+ 18,000
	2,091	1,908	− 183	2,427,000	0.31	1,463,000	0.21	− 964,000	2,377,000	− 50,000
	45,021	42,419	− 2,602	98,915,000	12.71	85,766,000	12.36	−13,149,000	93,734,000	− 5,181,000
tton stuffs	9,423	9,879	+ 456	21,847,000	2.81	20,964,000	3.02	− 883,000	22,917,000	+ 1,070,000
s, &c	4,735	4,472	− 263	10,704,000	1.38	8,914,000	1.28	− 1,790,000	9,656,000	− 1,048,000
	512	723	+ 211	5,228,000	0.67	9,156,000	1.32	+ 3,928,000	7,623,000	+ 2,395,000

Values of merchandise exported from the German customs territory during calendar year 1885, &c.—Continued.

[Ton = 22 cwt; + denotes increase; − denotes decrease.]

es.	Goods exported.		Increase and decrease in 1885 as compared with 1884.	Value of such exports.				Increase and decrease in 1885 as compared with 1884.	Value of exports in 1885 priced as in 1884.	Increase and decrease in 1885, as compared with 1884, the exports of 1884 being valued at the same prices as in 1884.
				1884.		1885.				
	1884.	1885.		Total value.	Percentage of total value.	Total value.	Percentage of total value.			
	Tons.	*Tons.*	*Tons.*							
thing	6,390	5,750	− 640	24,046,000	3.09	20,658,000	2.98	− 3,388,000	21,477,000	− 2,569,000
rs, and flowers	711	749	+ 38	5,516,000	0.71	6,363,000	0.92	+ 847,000	5,834,000	+ 318,000
factures of caoutchouc	3,357	3,376	+ 19	5,265,000	0.63	5,645,000	0.81	+ 380,000	5,129,000	− 136,000
	282	175	− 107	548,000	0.07	314,000	0.04	− 234,000	314,000	− 234,000
	439	477	+ 38	380,000	0.05	399,000	0.06	+ 19,000	441,000	+ 61,000
leather, and wax cloth	2,636	2,724	+ 88	4,337,000	0.56	4,933,000	0.71	+ 596,000	4,374,000	+ 37,000
utchouc	8,346	5,920	− 2,426	927,000	0.12	1,040,000	0.15	+ 113,000	1,084,000	+ 157,000
stered carriages and fur-	98,679	86,244	− 12,435	32,533,000	4.18	27,567,000	3.97	− 4,966,000	29,034,000	− 3,499,000
	6,984	7,319	+ 335	23,667,000	3.04	18,477,000	2.66	− 5,190,000	23,376,000	− 291,000
uments, and apparatus	10,798	11,505	+ 707	13,208,000	1.70	14,719,000	2.12	+ 1,511,000	13,673,000	+ 465,000
	277	77	− 200	204,000	0.03	101,000	0.02	− 103,000	56,000	− 148,000
l fine arts										
	19,151,756	18,814,023	−337,733	778,117,000	100.00	693,831,000	100.00	−84,286,000	749,801,000	− 28,317,000

.—*Comparative table showing volume and value of the chief articles imported into the German Zollverein during the years 1880–1885.*

[In tons (1 ton = 22 cwt.) except when otherwise stated.]

rticles.	Quantity.						Value.					
	1880.	1881.	1882.	1883.	1884.	1885.	1880.	1881.	1882.	1883.	1884.	1885.
head	59,722	54,793	64,980	76,636	74,469	69,763	$14,214,000	$11,737,000	$13,919,000	$14,591,000	$15,065,000	$14,279,000
s.....do	54,044	64,239	89,730	81,000	47,717	45,961	3,859,000	4,717,000	7,605,000	7,842,000	4,368,000	4,427,000
.....do	16,078	13,012	25,197	28,092	16,891	12,718	1,148,000	1,239,000	2,399,000	2,674,000	1,507,000	1,036,000
.....do	34,294	35,190	56,126	41,078	27,002	30,317	571,000	754,000	1,803,000	1,857,000	1,092,000	1,299,000
.....do	25,664	39,935	43,486	37,882	18,992	18,194	214,000	333,000	362,000	541,000	253,000	221,000
.....do	1,104,321	1,167,945	1,039,136	926,502	759,207	545,633	14,455,000	23,647,000	23,989,000	22,051,000	18,069,000	12,467,000	
.....do	168,495	197,061	278,047	180,168	134,945	112,834	321,000	328,000	595,000	386,000	273,000	201,000	
	173,667	53,906	69,142	88,674	75,528	71,434	546,000	231,000	436,000	539,000	411,000	64,000	
	25,107	20,117	8,660	11,694	5,200	5,819	5,952,000	5,306,000	2,718,000	3,118,000	1,632,000	1,588,000	
	163	212	227	285	322	390	542,000	706,000	756,000	950,000	1,072,000	1,207,000	
	54,599	38,547	25,890	31,034	23,832	35,653	11,695,000	9,174,000	7,024,000	7,017,000	4,821,000	6,024,000	
	5,001	4,899	4,664	4,886	3,792	4,284	1,792,000	1,662,000	1,802,000	1,884,000	1,186,000	1,242,000	
	4,111	3,866	3,810	4,064	4,394	4,600	1,174,000	1,196,000	1,469,000	1,547,000	1,673,000	1,752,000	
	15,439	14,841	18,125	18,168	19,802	23,656	3,491,000	3,355,000	4,098,000	3,459,000	4,948,000	5,067,000	
	2,119	2,731	3,425	2,358	2,726	5,408	313,000	390,000	489,000	337,000	357,000	592,000	
	737,137	854,557	875,131	867,351	960,046	1,023,675	6,140,000	6,915,000	6,977,000	7,638,000	7,083,000	7,124,000	
ites	4,287	4,635	4,348	4,281	5,049	6,342	1,027,000	1,288,000	1,454,000	1,296,000	1,490,000	1,252,000	
	243	263	272	281	297	314	321,000	563,000	582,000	502,000	600,000	636,000	
	587	648	639	642	741	832	215,000	236,000	252,000	253,000	290,000	298,000	
	227,553	361,949	687,241	641,910	754,512	572,423	11,210,000	18,090,000	32,222,000	28,187,000	27,115,000	18,392,000	
	689,563	575,454	658,280	777,046	961,560	769,701	27,960,000	24,378,000	20,680,000	24,042,000	27,004,000	20,151,000	
	161,686	262,590	274,868	260,076	366,413	218,083	4,926,000	8,249,000	7,719,000	7,428,000	10,290,000	5,761,000	
	222,271	247,828	372,648	321,507	440,080	438,036	8,834,000	9,199,000	13,658,000	12,434,000	15,082,000	13,344,000	
	340,640	430,374	96,623	177,190	192,002	196,321	9,567,000	12,291,000	3,265,000	5,398,000	5,209,000	4,719,000	
	8,357	14,586	14,917	10,778	12,437	18,414	244,000	416,000	461,000	320,000	325,000	447,000	
	81,823	84,376	88,588	93,425	87,992	87,150	4,966,000	4,826,000	4,877,000	4,621,000	4,148,000	3,784,000	
	35,220	46,322	49,864	57,671	65,646	64,994	2,221,000	2,784,000	3,038,000	3,538,000	3,750,000	3,604,000	
	30,272	37,232	30,821	50,038	55,710	52,779	1,340,000	1,666,000	1,996,000	1,846,000	2,121,000	1,749,000	
	30,381	32,490	26,446	36,122	34,345	43,343	361,000	387,000	354,000	516,000	360,000	320,000	
	67,875	77,601	57,480	65,140	60,448	27,677	4,329,000	5,361,000	4,112,000	4,418,000	4,147,000	1,729,000	
	26,233	28,809	34,854	34,885	62,748	70,386	1,124,000	891,000	1,659,000	1,245,000	2,688,000	3,183,000	
	7,408	8,835	8,574	10,094	13,635	15,137	635,000	757,000	673,000	793,000	909,000	1,008,000	
	18,457	15,562	16,557	18,023	21,822	25,292	1,845,000	1,667,000	1,872,000	2,037,000	1,922,000	2,046,000	
	16,950	19,335	19,572	22,296	26,425	26,708	2,721,000	2,858,000	2,849,000	3,057,000	3,220,000	3,405,000	
	31,641	29,492	30,451	29,879	25,969	24,148	194,000	180,000	178,000	149,000	127,000	117,000	
	1,424	1,181	1,609	1,695	1,340	1,385	1,254,000	984,000	2,867,000	2,178,000	1,339,000	923,000	
	3,977	4,498	5,315	5,720	5,989	6,296	1,578,000	1,550,000	1,808,000	1,971,000	2,014,000	2,376,000	
	94,360	104,272	107,184	114,226	111,159	118,196	35,893,000	32,236,000	27,541,000	32,613,000	29,093,000	26,716,000	
	2,344	2,460	2,619	2,679	2,958	3,324	700,000	717,000	794,000	941,000	1,187,000	1,196,000	
	936	1,482	1,484	1,592	1,560	1,789	601,000	811,000	777,000	947,000	817,000	821,000	

rative table showing volume and value of the chief articles imported into the German Zollverien, &c.—Continued.

	Quantity.						Value.					
	1880.	1881.	1882.	1883.	1884.	1885.	1880.	1881.	1882.	1883.	1884.	1885.
.....	1,489	1,678	2,321	2,056	2,036	2,408	$195,000	$202,000	$282,000	$235,000	$194,000	$221,000
.....	2,727	2,513	2,170	1,854	1,352	1,303	415,000	389,000	325,000	247,000	135,000	124,000
.....	3,516	3,697	3,776	3,697	3,378	3,146	248,000	243,000	230,000	220,000	193,000	194,000
.....	9,831	1,334	67	430	129	282	269,000	38,000	1,000	10,000	2,000	5,000
.....	12,070	12,032	12,761	13,537	13,645	13,163	603,000	601,000	607,000	644,000	682,000	658,000
.....	4,446	4,614	4,517	4,855	7,590	6,325	1,023,000	1,042,000	1,300,000	1,414,000	2,089,000	1,775,000
.....	244	254	231	202	209	175	30,000	31,000	28,000	25,000	26,000	22,000
.....	43,763	44,747	50,954	52,211	53,746	54,103	5,728,000	6,390,000	7,034,000	7,331,000	7,930,000	7,082,000
.....	3,657	3,803	3,874	3,947	4,690	3,320	1,777,000	1,884,000	2,034,000	2,071,000	2,497,000	1,738,000
.....	178	157	137	140	145	138	72,000	63,000	55,000	56,000	58,000	53,000
.....	1,878	3,100	2,590	2,761	2,207	2,716	626,000	922,000	740,000	756,000	657,000	614,000
.....	2,174	2,330	2,346	2,618	2,650	2,956	814,000	1,021,000	1,014,000	1,216,000	1,243,000	1,342,000
.....	10,326	20,643	28,976	30,472	34,487	38,297	3,140,000	6,296,000	12,317,000	10,484,000	11,919,000	2,323,000
.....	807	819	812	812	895	931	2,550,000	2,434,000	2,486,000	2,231,000	2,323,000	2,542,000
.....	117,384	113,384	106,316	72,985	68,271	64,408	5,029,000	5,424,000	5,566,000	3,474,000	3,250,000	2,146,000
.....	14,630	18,272	25,242	21,820	28,248	22,039	522,000	652,000	961,000	779,000	874,000	629,000
.....	15,600	20,404	24,879	31,564	30,279	23,336	557,000	680,000	888,000	976,000	865,000	500,000
.....	2,058,768	1,953,132	2,090,622	2,181,182	2,296,777	2,375,905	6,125,000	5,810,000	5,722,000	5,451,000	5,740,000	6,446,000
.....	228,207	170,308	201,323	166,309	123,190	151,924	652,000	567,000	766,000	534,000	322,000	421,000
.....	3,081,269	3,064,080	3,064,080	3,319,944	3,466,322	3,647,777	2,420,000	2,917,000	2,876,000	3,161,000	3,310,000	3,212,000
.....	13,261	14,569	19,448	9,330	6,677	6,103	235,000	260,000	174,000	155,000	111,000	87,000
.....	8,744	9,527	9,203	5,893	4,222	2,494	317,000	324,000	290,000	187,000	129,000	75,000
.....	8,004	5,548	6,577	5,231	3,615	3,262	533,000	370,000	422,000	336,000	224,000	171,000
.....	739	560	441	326	330	462	30,000	21,000	13,000	10,000	10,000	14,000
.....	7,221	7,145	5,817	5,127	6,339	6,178	215,000	170,000	138,000	183,000	256,000	206,000
.....	33,783	34,652	34,147	27,904	35,967	35,070	2,216,060	3,381,000	3,413,000	2,324,000	2,568,000	1,878,000
.....	55,078	89,950	126,949	166,185	200,647	156,738	4,064,000	6,423,000	7,856,000	8,701,000	9,551,000	7,461,000
.....	2,464	2,644	3,132	2,455	2,795	2,173	1,319,000	1,416,000	1,416,000	1,169,000	1,331,000	1,134,000
.....	60,186	62,512	59,264	59,812	65,680	64,813	1,647,000	1,562,000	1,487,000	2,064,000	2,032,000	1,851,000
.....	5,210	6,438	5,571	6,645	6,043	5,653	806,000	919,000	862,000	949,000	762,000	673,000
.....	45,614	49,659	50,399	56,334	54,374	60,130	2,078,000	2,076,000	2,130,000	2,293,000	2,151,000	2,031,000
.....	3,192	4,011	4,619	4,525	4,938	4,955	684,000	811,000	940,000	915,000	910,000	920,000
.....	1,232	1,633	1,562	1,718	1,934	1,969	4,260,000	5,441,000	5,018,000	5,315,000	5,753,000	6,091,000
.....	16,656	25,138	33,710	27,145	21,108	19,067	793,000	1,199,000	1,966,000	1,583,000	1,206,000	903,000
.....	1,498	2,168	2,579	1,793	3,708	4,338	3,209,000	3,612,000	3,990,000	1,706,000	3,089,000	2,735,000
.....	38,877	45,638	50,814	50,429	64,452	46,940	1,295,000	1,466,000	1,633,000	1,560,000	1,917,000	1,285,000
.....	266,587	364,879	342,510	370,305	462,545	482,189	11,579,000	13,895,000	11,820,000	13,220,000	16,513,000	16,640,000
.....	19,891	22,026	27,158	47,236	16,921	34,603	1,326,000	1,311,000	1,616,000	3,811,000	1,099,000	1,547,000
.....	7,022	6,902	7,903	8,642	9,178	9,816	1,003,000	1,068,000	1,410,000	1,275,000	1,090,000	1,168,000
.....	2,565	2,841	2,431	3,014	3,373	3,188	357,000	399,000	335,000	359,000	385,000	334,000
.....	460	468	517	533	559	573	197,000	223,000	246,000	254,000	253,000	340,000
.....	6,531	8,294	7,632	12,857	6,758	7,158	1,290,000	1,657,000	1,362,000	2,026,000	1,254,000	1,192,000

arrels	29,744	31,457	35,957	47,742	38,280	38,313	4,106,000	4,193,000	4,792,000	5,454,000	4,100,000	4,103,000
trels	28,469	33,683	32,209	30,570	27,313	29,782	5,377,000	5,532,000	5,205,000	4,871,000	4,066,000	3,957,000
n oil	12,545	10,262	9,841	10,071	10,870	11,409	1,791,000	1,367,000	1,546,000	1,726,000	1,687,000	1,358,000
ine, spermaceti	3,262	5,192	6.286	5,053	3,799	2,169	1,085,000	1,174,000	1,571,000	1,323,000	1,085,000	516,000
	804	622	474	428	264	266	252,000	163,000	141,000	137,000	88,000	79,000
mery	993	1,444	1,725	1,577	1,698	1,724	380,000	503,000	589,000	599,000	630,000	494,000
	274,489	325,053	263,135	245,510	280,273	273,984	2,450,000	2,901,000	2,348,000	2,191,000	2,501,000	2,183,000
	38,496	52,146	59,992	43,631	51,885	66,800	687,000	931,000	1,071,000	883,000	1,049,000	1,353,000
	460	515	538	573	631	669	81,000	91,000	94,000	99,000	108,000	87,000
	529	468	440	425	450	459	163,000	140,000	142,000	139,000	149,000	106,000
t glass	444	296	241	280	316	333	74,000	49,000	34,000	40,000	30,000	30,000	54,000
round	744	753	757	763	726	1,039	53,000	46,000	48,000	60,000	45,000	54,000
ite beads, &c	2,931	2,986	3,061	2,797	2,970	3,050	344,000	355,000	364,000	300,000	318,000	305,000
sware, &c	1,728	1,793	1,735	1,672	1,543	1,730	740,000	801,000	807,000	778,000	667,000	800,000
	925	860	864	810	808	846	369,000	344,000	348,000	360,000	358,000	359,000
res	607,007	626,175	785,360	800,373	980,442	852,316	2,889,000	2,981,000	2,804,000	2,857,000	2,567,000	2,459,000
	26,578	22,316	26,472	31,269	32,136	32,207	4,428,000	3,718,000	4,410,000	4,837,000	4,589,000	4,593,000
	232,195	244,601	283,009	274,821	264,501	215,974	3,426,000	3,493,000	4,041,000	3,532,000	3,022,000	2,185,000
	5,167	5,981	5,636	6,124	6,511	6,108	2,275,000	2,705,000	2,750,000	2,769,000	2,634,000	2,616,000
	12,301	11,020	10,579	11,665	13,819	13,168	3,950,000	3,541,000	3,424,000	3,615,000	3,590,000	2,977,000
	12,504	14,198	15,785	16,128	16,505	16,153	714,000	777,000	864,000	806,000	746,000	721,000
	2,764	2,709	2,749	2,426	5,417	5,989	289,000	258,000	262,000	225,000	468,000	484,000
	3,038	3,277	3,439	3,783	3,630	2,840	217,000	234,000	246,000	243,000	220,000	268,000
	770	437	475	544	560	406	363,000	191,000	207,000	218,000	218,000	121,000
, heavy	18,088	16,670	15,019	16,335	18,209	17,168	2,501,000	2,376,000	2,264,000	2,187,000	2,134,000	1,912,000
l, zinc, and tin	818	893	966	1,012	1,076	1,069	1,200,000	1,242,000	1,337,000	1,285,000	1,268,000	1,161,000
es, &c	148	151	136	139	170	174	88,000	88,000	79,000	106,000	115,000	121,000
crude	1,015	1,119	1,211	1,239	1,307	1,389	714,000	778,000	816,000	854,000	866,000	1,004,000
prepared	1,222,815	1,361,068	1,129,110	1,270,821	1,213,237	1,669,696	10,913,000	12,680,000	9,801,000	11,383,000	11,288,000	11,705,000
	542,204	559,099	639,445	668,860	733,411	953,441	7,172,000	7,772,000	8,706,000	8,859,000	9,436,000	11,568,000
d, baskets	3,847	4,160	4,225	5,417	5,117	5,764	641,000	673,000	684,000	877,000	828,000	960,000
	946	993	1,014	1,012	1,064	986	450,000	473,000	483,000	483,000	507,000	471,000
	567	1,099	1,230	1,469	1,471	1,524	432,000	837,000	957,000	1,119,000	1,120,000	1,179,000
	348	547	553	592	770	795	522,000	911,000	921,000	987,000	1,283,000	1,229,000
board and paper	34,348	38,045	37,281	34,743	33,113	34,039	1,758,000	2,173,000	2,129,000	1,819,000	1,576,000	1,458,000
	3,512	3,617	3,519	3,386	3,106	2,777	1,058,000	1,144,000	1,181,000	1,135,000	1,022,000	953,000
ather	118	164	126	114	121	123	36,000	50,000	39,000	35,000	38,000	36,000
and goats	46,109	46,713	48,381	54,834	58,338	62,925	16,052,000	16,416,000	16,789,000	19,382,000	21,103,000	20,050,000
	7,033	7,383	7,346	8,286	8,390	7,351	2,918,000	3,338,000	3,320,000	3,550,000	3,394,000	2,799,000
	2,100	2,008	2,032	2,157	2,232	1,812	11,497,000	10,755,000	10,881,000	10,818,000	10,625,000	6,737,000
nd sheep skins	2,093	2,195	2,713	2,713	2,526	2,745	1,694,000	1,828,000	2,260,000	2,260,000	2,119,000	2,090,000
	3,631	4,683	3,639	4,269	4,270	4,606	2,868,000	3,660,000	2,902,000	3,495,000	3,388,000	3,718,000
	473	443	437	421	395	311	823,000	748,000	737,000	712,000	668,000	490,000
er	345	352	356	353	445	486	1,479,000	1,506,000	1,523,000	1,511,000	1,905,000	2,048,000
	42	47	51	59	58	68	701,000	780,000	852,000	995,000	970,000	1,128,000
	1,610	1,663	1,597	1,750	1,988	1,830	2,031,000	1,780,000	2,167,000	2,499,000	2,365,000	1,960,000
	3,186	3,181	3,300	3,389	3,822	3,878	3,578,000	2,574,000	3,534,000	3,630,000	4,093,000	3,691,000
	148,654	157,070	155,859	189,093	177,586	175,185	42,455,000	41,121,000	42,659,000	49,504,000	48,183,000	44,365,000
	1,644	5,796	2,877	3,427	2,489	1,161	685,000	2,345,000	1,198,000	1,386,000	1,025,000	456,000
	36,369	50,259	74,180	67,561	65,185	57,168	6,925,000	8,612,000	12,182,000	11,172,000	10,549,000	9,524,000
	40,689	54,512	38,950	41,826	40,308	41,603	5,810,000	7,136,000	5,099,000	5,674,000	5,564,000	5,941,000
	17,564	18,603	23,601	33,472	33,790	41,900	1,388,000	1,550,000	1,685,000	2,469,000	2,655,000	2,393,000

rative table showing volume and value of the chief articles imported into the German Zollverein, &c.—Continued.

	Quantity.						Value.					
	1880.	1881.	1882.	1883.	1884.	1885.	1880.	1881.	1882.	1883.	1884.	1885.
.....	68,756	77,372	88,502	90,969	105,666	98,790	$49,091,000	$46,036,000	$48,446,000	$47,632,000	$52,812,000	$39,970,000
.....	5,325	5,981	5,595	5,530	4,442	9,259	1,014,000	1,139,000	1,465,000	1,382,000	1,057,000	1,940,000
.....	1,890	3,244	3,400	3,409	4,285	5,143	2,479,000	4,246,000	4,046,000	4,057,000	4,691,000	4,651,000
.....	13,132	16,475	18,075	21,947	22,140	20,811	9,002,000	10,353,000	12,339,000	13,617,000	13,780,000	11,992,000
.....	11,144	12,589	13,712	13,199	15,006	16,893	4,130,000	4,511,000	5,635,000	6,557,000	6,672,000	6,794,000
.....	1,948	1,862	2,138	2,452	2,502	1,736	20,867,000	21,276,000	24,427,000	27,720,000	28,287,000	18,181,000
.....	1,323	1,583	1,376	1,188	1,560	1,200	6,090,000	6,729,000	5,767,000	5,221,000	6,623,000	6,567,000
.....	49	40	39	35	34	40	562,000	461,000	418,000	347,000	326,000	377,000
.....	14,920	15,678	16,110	16,901	19,021	19,319	22,160,000	20,297,000	19,893,000	19,154,000	22,228,000	22,803,000
.....	1,387	1,392	1,477	1,545	1,617	1,544	3,590,000	4,359,000	5,196,000	5,234,000	5,541,000	5,367,000
.....	7,276	7,883	8,029	7,163	6,284	4,194	1,992,000	2,138,000	2,198,000	1,961,000	1,720,000	1,148,000
, &c.....	263	311	302	297	287	294	904,000	1,014,000	1,235,000	1,363,000	1,404,000	1,285,000
.....	292	345	368	330	378	416	4,629,000	5,517,000	6,833,000	6,202,000	7,073,000	8,107,000
.....	224	209	218	250	278	302	1,992,000	2,155,000	2,249,000	2,575,000	2,551,000	2,501,000
.....	3,631	3,094	2,326	2,106	2,038	2,120	6,205,000	5,704,000	4,328,000	3,763,000	3,642,000	3,819,000
.....	308	299	278	277	284	300	1,667,000	1,947,000	2,136,000	2,629,000	1,882,000	1,915,000
inery.....	1,912	1,937	1,999	2,002	2,670	2,366	3,185,000	2,996,000	3,662,000	4,146,000	4,448,000	3,942,000
.....	579	812	847	842	876	815	301,000	411,000	442,000	437,000	443,000	429,000
.....	304	284	279	267	280	291	627,000	580,000	600,000	609,000	575,000	510,000
.....	150	109	87	260	190	219	52,000	53,000	45,000	44,000	29,000	89,000
.....	188	183	185	154	191	199	85,000	83,000	84,000	69,000	86,000	90,000
.....	57	55	47	49	44	43	35,000	36,000	31,000	34,000	31,000	29,000
.....	24,287	26,117	31,853	34,502	39,399	37,147	3,921,000	4,313,000	5,277,000	5,397,000	5,835,000	5,499,000
.....	355	366	354	366	379	365	244,000	273,000	260,000	268,000	275,000	269,000
.....	29	28	30	30	34	35	2,798,000	2,684,000	2,896,000	2,859,000	3,216,000	2,971,000
.....	358	390	367	346	359	416	2,230,000	2,771,000	2,821,000	3,069,000	3,463,000	3,738,000

O.—*Comparative table showing volume and value of the chief articles exported from the German Zollverein during the years* 1880–1885.

ticles.	Quantities.						Value.					
	1880.	1881.	1882.	1883.	1884.	1885.	1880.	1881.	1882.	1883.	1884.	1885.
.....head..	17, 960	18, 867	18, 225	19, 197	19, 034	15, 770	$5, 984, 000	$5, 388, 000	$4, 988, 000	$5, 482, 000	$5, 209, 000	$4, 310, 000
ws.....do...	56, 796	58, 475	62, 184	69, 350	65, 316	42, 788	4, 138, 000	4, 346, 000	5, 011, 000	5, 908, 000	5, 195, 000	3, 145, 000
.....do...	58, 896	67, 906	70, 340	66, 870	59, 967	49, 321	5, 607, 000	6, 464, 000	7, 282, 000	6, 923, 000	5, 994, 000	4, 695, 000
.....do...	45, 221	53, 826	52, 166	54, 138	58, 783	49, 335	969, 000	1, 153, 000	1, 676, 000	2, 255, 000	2, 588, 000	2, 172, 000
.....do...	59, 391	59, 092	56, 757	53, 977	51, 823	50, 833	636, 000	633, 000	702, 000	707, 000	641, 000	629, 000
.....do...	438, 724	347, 738	294, 792	417, 822	502, 379	423, 293	8, 875, 000	6, 207, 000	5, 613, 000	6, 961, 000	8, 130, 000	6, 951, 000
.....do...	29, 225	49, 172	23, 278	21, 308	22, 070	18, 084	62, 000	70, 000	55, 000	51, 000	52, 000	39, 000
.....tons..	1, 256, 584	1, 249, 511	1, 451, 770	1, 442, 648	1, 361, 451	1, 204, 030	5, 931, 000	7, 362, 000	9, 911, 000	9, 843, 000	8, 313, 000	6, 351, 000
.....do...	10, 518	8, 733	7, 355	10, 238	9, 588	5, 586	776, 000	658, 000	525, 000	731, 000	650, 000	365, 000
.....do...	40, 352	23, 599	30, 262	25, 625	7, 146	8, 650	1, 921, 000	1, 134, 000	1, 152, 000	945, 000	281, 000	337, 000
.....do...	578, 951	230, 425	233, 335	340, 940	132, 461	126, 565	12, 401, 000	2, 742, 000	3, 332, 000	4, 666, 000	1, 624, 000	1, 129, 000
les .....do...	80, 576	50, 054	92, 844	136, 087	131, 431	129, 043	5, 561, 000	3, 116, 000	5, 303, 000	7, 773, 000	6, 882, 000	6, 142, 000
.....do...	5, 533	3, 960	3, 919	3, 870	3, 882	4, 208	461, 000	430, 000	317, 000	295, 000	259, 000	265, 000
.....do...	20, 726	30, 295	23, 871	39, 525	30, 286	26, 025	937, 000	1, 298, 000	1, 136, 000	1, 693, 000	1, 514, 000	1, 363, 000
.....do...	105, 201	140, 110	139, 338	137, 740	142, 252	120, 717	1, 377, 000	1, 834, 000	1, 824, 000	1, 311, 000	1, 016, 000	1, 513, 000
.....do...	147, 663	185, 408	148, 853	146, 219	125, 404	118, 340	1, 054, 000	1, 324, 000	850, 000	852, 000	721, 000	690, 000
.....do...	6, 708	6, 933	7, 132	8, 629	10, 289	9, 834	1, 900, 000	2, 290, 000	2, 436, 000	2, 973, 000	3, 282, 000	3, 076, 000
.....do...	12, 465	11, 492	11, 659	12, 585	13, 592	14, 074	5, 043, 000	4, 786, 000	4, 856, 000	4, 942, 000	4, 529, 000	5, 024, 000
.....do...	4, 342	4, 026	4, 201	3, 837	4, 486	4, 000	1, 240, 000	1, 160, 000	1, 200, 000	1, 096, 000	1, 287, 000	1, 142, 000
.....do...	5, 700	6, 232	5, 808	5, 611	5, 393	5, 986	1, 184, 000	1, 294, 000	1, 206, 000	1, 165, 000	1, 120, 000	1, 243, 000
.....do...	178, 170	53, 388	62, 502	80, 758	36, 193	14, 080	9, 732, 000	2, 986, 000	3, 087, 000	3, 797, 000	1, 507, 000	519, 000
.....do...	26, 587	11, 564	15, 755	12, 134	6, 286	4, 021	1, 221, 000	558, 000	553, 000	433, 000	217, 000	129, 000
.....do...	43, 569	31, 591	25, 779	41, 823	18, 527	12, 821	1, 607, 000	1, 203, 000	920, 000	1, 418, 000	661, 000	422, 000
..... do...	154, 409	119, 318	79, 743	82, 824	37, 265	24, 706	7, 975, 000	5, 750, 000	13, 202, 000	3, 351, 000	1, 667, 000	970, 000
.....do...	10, 876	8, 663	12, 093	7, 503	11, 514	12, 673	7, 247, 000	5, 773, 000	17, 556, 000	8, 035, 000	8, 495, 000	5, 881, 000
sugar in	197, 835	252, 088	289, 771	436, 790	524, 662	444, 205	19, 305, 000	26, 399, 000	29, 103, 000	40, 283, 000	33, 090, 000	29, 602, 000
.....tons..	34, 147	37, 058	40, 697	50, 833	80, 300	61, 538	4, 673, 000	5, 468, 000	5, 811, 000	6, 412, 000	7, 836, 000	5, 770, 000
.....do...	18, 888	18, 221	18, 372	24, 959	33, 622	23, 763	2, 338, 000	2, 428, 000	2, 427, 000	5, 826, 000	2, 921, 000	1, 979, 000
.....do...	18, 619	16, 768	16, 166	19, 582	29, 586	80, 872	579, 000	549, 000	472, 000	520, 000	603, 000	1, 593, 000
up ... do...	13, 322	16, 034	20, 651	17, 431	20, 907	24, 901	1, 078, 000	1, 298, 000	1, 671, 000	1, 244, 000	1, 299, 000	1, 422, 000
.....do...	106, 561	121, 744	128, 577	133, 209	143, 327	160, 659	4, 565, 000	5, 215, 000	4, 895, 000	5, 389, 000	5, 117, 000	5, 735, 000
.....do...	54, 707	84, 438	91, 711	65, 038	75, 134	89, 728	7, 066, 000	10, 300, 000	11, 422, 000	7, 497, 000	7, 451, 000	6, 826, 000
.....tons..	9, 770	10, 711	10, 457	12, 463	10, 678	14, 478	1, 395, 000	1, 580, 000	1, 867, 000	2, 224, 000	1, 906, 000	2, 584, 000
.....do...	6, 874	6, 497	6, 217	6, 289	6, 410	5, 800	2, 055, 000	1, 961, 000	2, 335, 000	2, 360, 000	2, 413, 000	2, 216, 000
..... do...	26, 560	27, 464	27, 062	25, 743	28, 932	26, 985	1, 138, 000	1, 176, 000	1, 159, 000	1, 103, 000	1, 308, 000	1, 220, 000
.....do...	2, 934	3, 500	3, 729	3, 350	4, 341	4, 560	838, 000	1, 177, 000	1, 260, 000	1, 108, 000	1, 440, 000	1, 262, 000
mannfact-												
.....tons..	187	2, 856	3, 513	2, 109	5, 108	5, 369	42, 000	646, 000	668, 000	401, 000	990, 000	1, 147, 000
acco..do...	1, 085	1, 374	1, 739	1, 548	1, 716	1, 932	849, 000	983, 000	1, 140, 000	1, 115, 000	1, 146, 000	1, 428, 000
.....do...	21, 928	10, 978	11, 509	11, 520	12, 734	12 524	1, 357, 000	686, 000	760, 000	781, 000	757, 000	626, 000

showing the volume and value of the chief articles exported from the German Zollverein during the years 1880–1885.—Continued.

	Quantities.						Value.					
	1880.	1881.	1882.	1883.	1884.	1885.	1880.	1881.	1882.	1883.	1884.	1885.
tons	39,551	27,941	28,860	28,249	20,707	11,406	$2,212,000	$1,468,000	$1,305,000	$1,277,000	$961,000	$529,000
do	10,822	13,308	13,277	15,876	17,153	16,333	1,185,000	1,172,000	1,201,000	1,398,000	1,470,000	1,599,000
do	5,692	5,420	5,429	5,414	5,450	5,421	1,693,000	1,692,000	1,421,000	1,288,000	1,297,000	839,000
do	5,888	5,578	4,535	4,008	4,291	4,284	4,904,000	4,647,000	5,937,000	3,672,000	2,880,000	2,263,000
do	2,141	2,664	3,114	3,819	4,822	4,646	7,307,000	8,242,000	10,005,000	8,181,000	8,608,000	8,293,000
do	1,151	1,311	1,274	1,212	1,523	1,822	329,000	374,000	363,000	346,000	435,000	520,000
do	669	668	642	705	683	655	478,000	477,000	468,000	504,000	488,000	545,000
do	11,422	11,404	11,694	12,645	16,605	17,448	408,000	353,000	362,000	391,000	514,000	290,000
do	10,519	13,473	18,995	24,434	11,200	7,999	369,000	481,000	768,000	1,105,000	533,000	305,000
do	6,638	8,981	7,638	7,045	7,219	11,695	6,638,000	8,981,000	7,658,000	7,045,000	7,219,000	11,695,000
do	36,032	32,473	29,079	35,018	38,504	31,670	1,201,000	1,159,000	1,038,000	1,250,000	1,374,000	1,017,000
do	7,236,466	7,458,248	7,631,617	8,705,000	8,816,935	8,955,629	11,195,000	12,425,000	13,622,000	18,646,000	18,886,000	19,183,000
do	348,408	430,372	478,351	602,138	670,606	633,897	1,328,000	1,741,000	1,935,000	2,221,000	2,075,000	1,886,000
do	187,493	162,440	157,109	177,199	186,703	178,881	1,073,000	927,000	748,000	843,000	889,000	851,000
do	7,771	7,408	7,534	8,901	8,449	9,203	749,000	776,000	807,000	911,000	845,000	766,000
e of po-	56,690	75,089	96,205	101,678	77,330	85,085	2,024,000	2,949,000	3,435,000	3,509,000	3,405,000	2,682,000
tons	906	1,276	1,234	1,352	1,293	1,056	743,000	1,093,000	998,000	1,062,000	1,031,000	804,000
do	164	181	209	186	192	197	605,000	603,000	797,000	621,000	639,000	889,000
do	2,132	2,596	2,893	3,525	3,706	3,472	609,000	753,000	964,000	1,216,000	1,279,000	1,032,000
do	3,135	6,004	9,381	7,506	6,347	8,216	503,000	927,000	1,566,000	1,372,000	1,086,000	1,161,000
do	2,693	3,420	3,095	2,913	2,617	702	769,000	692,000	663,000	693,000	685,000	167,000
do	2,332	2,849	2,032	2,467	2,333	2,163	499,000	1,153,000	1,079,000	851,000	584,000	415,000
acid, tons	864	929	1,420	1,713	2,589	1,834	271,000	265,000	389,000	510,000	801,000	546,000
tons	2,537	2,413	2,201	3,311	3,367	4,278	1,087,000	1,206,000	1,100,000	1,733,000	1,763,000	2,443,000
do	1,831	2,566	2,530	2,274	2,201	2,387	392,000	543,000	494,000	298,000	288,000	312,000
do	211,464	235,032	250,175	309,877	337,632	345,633	2,516,000	2,377,000	2,530,000	2,949,000	3,053,000	2,879,000
do	506,753	502,197	534,679	568,889	588,379	452,966	5,427,000	5,378,000	5,726,000	2,708,000	2,801,000	2,309,000
do	29,567	30,829	32,656	34,065	35,190	34,195	2,217,000	2,539,000	2,606,000	1,863,000	1,827,000	2,021,000
do	647,187	669,918	639,171	622,876	608,270	597,255	2,008,000	2,072,000	1,975,000	1,943,000	1,909,000	1,652,000
do	34,190	39,561	33,819	40,797	41,086	52,615	2,831,000	3,169,000	3,182,000	3,493,000	3,574,000	3,440,000
do	6,683	8,431	9,245	9,769	10,575	9,888	1,988,000	2,508,000	2,542,000	2,906,000	3,146,000	2,118,000
do	40,170	43,009	43,622	50,616	53,737	52,627	1,721,000	1,842,000	1,972,000	2,289,000	2,302,000	2,129,000
do	7,170	8,149	9,144	11,425	11,906	14,433	1,024,000	1,164,000	1,084,000	1,360,000	992,000	985,000
do	40,622	59,963	56,478	54,939	58,995	68,432	3,190,000	4,638,000	4,570,000	4,119,000	3,934,000	4,642,000
do	6,478	6,718	6,097	5,781	6,908	5,708	2,128,000	2,206,000	2,031,000	1,848,000	1,972,000	1,324,000
do	145,129	152,605	144,407	148,989	153,964	144,466	5,008,000	4,910,000	4,812,000	4,548,000	4,214,000	3,610,000
do	6,676	4,554	3,696	6,903	5,863	17,873	246,000	152,000	123,000	213,000	174,000	489,000
do	37,608	40,933	44,204	52,276	44,035	43,898	1,835,000	1,997,000	2,157,000	2,364,000	1,834,000	1,721,000
do	104,775	159,416	227,416	206,668	212,784	193,027	6,982,000	10,624,000	12,449,000	10,329,000	9,369,000	6,018,000
of iron	9,926	19,689	18,436	20,989	14,222	12,449	596,000	915,000	877,000	896,000	608,000	627,000

------do...	12,525	18,276	14,270	16,505	16,273	16,632	$1,133,000	$1,611,000	$1,290,000	$1,394,000	$1,235,000	$1,287,000
sheet glass, not												
------tons..	2,323	2,697	3,125	2,776	2,896	2,946	332,000	481,000	1,041,000	1,057,000	965,000	841,000
heet glass, plated,												
------	2,571	2,762	3,126	3,330	3,074	3,127	918,000	986,000	1,265,000	1,505,000	1,609,000	1,637,000
re------tons..	7,387	8,323	10,386	11,110	12,424	11,619	2,167,000	2,311,000	2,522,000	2,753,000	2,550,000	1,097,000
------do...	1,263,036	1,443,278	1,621,182	1,886,650	1,898,491	1,771,158	1,803,000	2,061,000	2,315,000	2,694,000	2,033,000	2,108,000
------do...	207,776	245,496	186,938	258,461	230,008	213,534	4,080,000	4,302,000	3,337,000	4,121,000	2,901,000	2,236,000
------do...	79,753	67,074	59,548	60,987	43,708	36,704	1,708,000	1,117,000	992,000	900,000	614,000	463,000
------do...	31,350	40,677	32,958	32,083	23,450	26,526	821,000	1,016,000	824,000	763,000	530,000	568,000
------do...	45,419	46,799	41,916	49,579	49,313	41,123	3,459,000	3,230,000	2,693,000	2,949,000	2,523,000	2,104,000
d parts ....do ..	7,766	6,317	5,539	8,970	3,594	7,505	538,000	466,000	395,000	576,000	223,000	429,000
------do...	230,204	250,709	186,054	175,178	144,464	164,799	7,123,000	7,160,000	5,758,000	4,612,000	4,040,000	4,314,000
lates and sleep-												
------do...	8,147	11,982	11,396	19,230	17,536	26,929	252,000	356,000	359,000	549,000	552,000	482,000
s ------do...	14,770	12,452	17,393	19,540	19,038	14,102	1,230,000	978,000	1,449,000	1,488,000	1,223,000	895,000
------do...	18,450	21,710	23,877	28,208	38,619	38,762	783,000	1,188,000	1,364,000	1,457,000	1,838,000	1,568,000
anufactures of												
------ tons..	86,463	95,628	98,048	98,483	102,197	99,162	18,416,000	21,815,000	23,778,000	24,018,000	24,204,000	17,057,000
------do...	725	674	689	599	545	641	1,725,000	1,603,000	1,691,000	1,425,000	1,298,000	1,296,000
s------do...	6,075	6,271	6,504	7,230	7,689	8,606	4,080,000	4,213,000	4,360,000	4,586,000	4,870,000	4,084,000
zinc, tin, and												
------tons..	4,366	3,548	4,048	4,022	4,407	4,635	991,000	1,157,000	1,336,000	1,576,000	1,610,000	1,811,000
d braziers' ar-												
------tons..	3,044	3,187	3,854	3,868	4,243	5,647	2,142,000	2,241,000	2,697,000	2,625,000	2,711,000	2,796,000
nickel, alfe-												
------tons..	1,130	2,530	1,809	2,276	2,429	2,231	614,000	2,185,000	2,583,000	3,249,000	3,458,000	3,424,000
er, raw . do...	462,048	260,611	275,261	270,478	299,759	291,882	4,215,000	2,531,000	2,738,000	2,826,000	2,919,000	2,570,000
er, sawn .do...	365,088	326,636	358,469	345,709	294,037	252,083	5,633,000	5,375,000	5,561,000	5,801,000	4,750,000	3,930,000
------do...	189	186	308	173	167	162	1,937,000	1,901,000	3,150,000	1,771,000	1,709,000	1,661,000
------do ..	1,623	1,989	2,386	2,676	2,694	2,873	811,000	979,000	1,306,000	1,464,000	1,539,000	1,528,000
es------do...	8,083	10,962	11,878	12,445	13,000	13,122	3,847,000	5,218,000	5,653,000	7,701,000	8,047,000	7,042,000
res of leather,												
------	1,181	1,141	1,212	1,262	1,344	1,090	2,249,000	2,119,000	2,250,000	2,342,000	2,495,000	1,945,000
eather .tons..	3,340	4,235	4,728	4,693	4,815	4,444	11,922,000	15,119,000	16,340,000	22,336,000	22,921,000	21,066,000
------do...	183	229	259	258	257	267	2,607,000	3,246,000	3,725,000	5,211,000	5,082,000	5,089,000
------do...	4,448	4,776	5,099	4,843	4,667	4,275	4,024,000	4,413,000	4,787,000	4,549,000	4,277,000	3,746,000
------do ..	23,230	31,872	52,652	42,215	38,155	34,157	4,424,000	5,462,000	9,022,000	7,133,000	6,447,000	5,690,000
------do...	23,541	34,589	24,066	21,864	19,954	22,377	3,361,000	4,527,000	2,148,000	3,960,000	2,897,000	3,302,000
------do...	14,325	12,085	13,432	12,722	11,914	10,095	11,933,000	11,505,000	11,828,000	10,900,000	9,337,000	6,487,000
------do...	14,168	14,231	14,939	12,971	11,756	13,648	2,697,000	3,058,000	3,555,000	2,935,000	2,518,000	2,274,000
------do...	377	308	334	267	290	326	218,000	262,000	286,000	228,000	249,000	233,000
------do...	2,195	2,107	2,025	1,452	1,231	448	1,044,000	1,003,000	964,000	691,000	586,000	455,000
rd .....do...	34,780	36,886	34,592	37,352	45,296	34,757	1,945,000	2,634,000	2,470,000	2,489,000	2,695,000	1,265,000
------do...	42,658	48,851	55,510	59,127	67,783	61,357	7,648,000	8,429,000	9,096,000	10,335,000	10,507,000	12,196,000
and paste-	1,822	2,171	2,322	2,348	2,574	2,433	434,000	517,000	663,000	739,000	785,000	695,000
------tons..	6,393	7,908	8,605	8,469	9,873	10,201	2,701,000	3,631,000	3,962,000	3,955,000	4,375,000	4,293,000
------do...	13,781	16,743	18,150	14,280	13,879	12,671	6,653,000	8,025,000	8,255,000	755,000	7,441,000	4,810,000
------do...	2,129	2,363	2,532	2,586	2,487	2,614	4,257,000	4,757,000	5,099,000	5,842,000	5,632,000	5,909,000
------do...	11,548	10,371	10,667	8,177	7,187	7,211	12,224,000	7,847,000	7,603,000	6,093,000	5,376,000	4,401,000
------do...	1,800	1,932	2,173	2,094	2,092	2,626	788,000	765,000	933,000	889,000	870,000	695,000

le showing volume and value of the chief articles exported from the German Zollverein during the years 1880–1885—Continued.

	Quantity.						Value.					
	1880.	1881.	1882.	1883.	1884.	1885.	1880.	1881.	1882.	1883.	1834.	1885.
ons..	883	988	942	994	1,042	1,120	$9,489,000	$10,820,000	$8,964,000	$8,873,000	$9,303,000	$5,669,000
do...	187	193	·185	170	214	158	1,935,000	2,207,000	1,979,000	1,819,000	2,035,000	1,270,000
do...	290	241	241	255	289	159	3,313,000	2,585,000	2,005,000	1,972,000	2,129,000	1,887,000
do...	4,957	4,487	5,035	4,814	5,189	5,679	7,723,000	7,044,000	8,098,000	7,305,000	7,647,000	8,625,000
do...	713	743	752	814	948	960	1,018,000	1,111,000	1,112,000	1,385,000	1,619,000	908,000
close	13,828	14,460	14,187	13,677	14,978	13,188	10,409,000	11,658,000	14,299,000	13,240,000	14,040,000	11,874,000
tons..				501	542	587	1,422,000	1,441,000	1,770,000	1,511,000	1,619,000	749,000
not	504	516	569									
tons..				3,349	3,455	3,371	3,656,000	3,163,000	3,551,000	3,350,000	3,532,000	3,217,000
l flax,	3,873	3,421	3,499	317	320	231	6,151,000	4,951,000	5,473,000	5,281,000	5,151,000	3,980,000
.....	393	319	321	3,413	4,083	3,875	3,312,000	32,220,000	30,807,000	28,163,000	30,872,000	27,668,000
tons..	3,095	3,258	3,737	19,800	21,108	20,455	70,222,000	43,899,000	41,785,000	41,880,000	42,798,000	37,102,000
..do...	16,643	18,320	19,170	6,292	6,836	7,035	8,610,000	11,622,000	14,114,000	14,225,000	16,641,000	14,232,000
..do...	5,168	5,426	5,930	2,039	2,071	2,112	2,080,000	2,567,000	3,468,000	3,184,000	3,204,000	3,018,000
..do...	1,457	1,659	2,242	1,084	894	677	9,657,000	8,829,000	3,463,000	3,702,000	3,396,000	2,261,000
..do...	1,205	1,189	1,106	2,461	2,636	2,424	3,286,000	3,503,000	4,059,000	4,434,000	4,337,000	4,933,000
..do...	2,057	2,169	2,349	2,458	1,018	1,071	1,115,000	1,490,000	1,134,000	1,624,000	750,000	718,000
..do...	2,222	3,108	1,702	92,405	84,307	72,272	10,261,000	10,865,000	14,854,000	15,584,000	13,463,000	11,871,000
..do...	63,091	60,601	84,808	6,742	6,966	6,823	1,898,000	3,129,000	3,931,000	4,011,000	3,979,000	3,897,000
..do...	3,626	5,367	6,771	3,830	3,895	3,524	3,242,000	3,505,000	3,994,000	4,558,000	4,635,000	4,194,000
..do...	2,732	2,946	3,354	133	147	138	667,000	691,000	649,000	790,000	872,000	594,000
..do...	93	97	91	5	6.	4	666,000	630,000	550,000	642,000	672,000	487,000
..do...	6	5	5	1,753	1,790	1,691	1,377,000	1,362,000	1,555,000	1,669,000	1,704,000	1,610,000
.. do...	1,447	1,431	1,633	2,219	2,490	2,755	4,912,000	5,605,000	5,740,000	5,808,000	6,222,000	5,901,000
...do...	2,026	1,963	2,012	278	376	504	2,123,000	937,000	1,348,000	2,315,000	3,135,000	5,995,000
...do...	157	131	162	10	12	22	333,000	297,000	524,000	607,000	744,000	1,357,000
...do...	6	5	9	5,463	6,390	5,709	18,570,000	19,921,000	22,284,000	21,234,000	24,046,000	20,658,000
....do...	4,232	4,518	5,081	3,035,983	3,129,431	2,818,093	901,000	935,000	985,000	903,000	931,000	1,149,000
....do...	3,150,592	3,145,091	3,302,554	247	287	268	781,000	803,000	832,000	1,059,000	1,228,000	1,272,000
... do...	164	169	194	308,515	347,830	368,814	227,000	257,000	291,000	147,000	166,000	162,000
....do...	318,688	360,676	408,425	118	103	112	606,000	811,000	855,000	842,000	489,000	848,000
....do ..	85	97	120	486	611	241	772,000	256,000	472,000	810,000	1,017,000	577,000
....do...	544	179	283									
....do...				97	90	88	9,327,000	10,072,000	9,708,000	11,531,000	11,679,000	10,445,000
ious met-	78	85	82									
....tons..				3,557	3,135	3,084	4,084,000	3,240,000	3,810,000	3,386,000	2,884,000	2,837,000
on, mixed	3,432	3,890	4,002									
&c..tons..												

me of goods imported into the German Zollverein for home consumption from and exported to different countries of the world in 1885—Special commerce.

[Ton = 22 cwt.]

Articles.	Import=I. Export=E.	Parts of German Empire not included in the German Zollverein.	Belgium.	Denmark.	France and Algiers.	Great Britain.	Italy.	Netherlands.	Norway and Sweden.	Austria-Hungary.	Portugal and Spain.
		Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
.....	I.	33, 136	6, 775	9, 324	7, 636	146	1, 406	8, 458	4	63, 352	.....
rticles of consumption.....	E.	103, 205	19, 693	1, 794	32, 002	29, 724	57	4, 724	226	4, 601	0
.....	I.	566, 630	228, 042	19, 287	124, 651	136, 678	19, 839	333, 540	30, 059	667, 694	5, 910
.....	E.	496, 243	65, 312	25, 840	117, 073	498, 197	5, 272	106, 947	78, 878	186, 429	36, 919
potatoes.....	I.	40, 858	4, 017	5, 723	2, 028	76, 397	652	32, 424	28, 152	21, 978	.....
	E.	39, 251	1, 865	924	5, 385	535	860	1, 042	190	1, 664	8
ain and baker's ware.....	I.	414, 010	203, 160	13, 073	64, 970	13, 443	2, 318	219, 341	1, 317	501, 827	4
	E.	98, 945	15, 053	8, 968	5, 036	19, 025	58	17, 858	17, 206	16, 428	45
les.....	I.	3, 209	658	29	7, 118	597	638	5, 813	7	41, 101	3
	E.	64, 958	430	6, 671	849	53, 606	371	7, 251	30, 632	6, 084	432
spices	I.	20, 022	4, 000	111	3, 772	1, 694	11, 317	25, 644	381	77, 510	1, 434
	E.	38, 109	2, 591	1, 372	7, 111	3, 778	8	3, 350	1, 073	119, 722	0
ea.....	I.	3, 199	360	71	1, 024	25, 708	201	2, 831	163	1, 247	414
	E.	54, 695	2, 973	3, 288	1, 612	3, 201	104	7, 973	5, 921	26, 176	14
, sirup.....	I.	45, 396	14, 723	60	8, 905	34, 260	16	37, 129	0	245	127
	E.	1, 469	158	655	76	109	1, 389	55	13	10, 066	0
rs, mineral waters, table oils.....	I.	2, 360	30	105	620	2, 071	0	1, 279	6	6	0
	E.	121, 014	14, 571	3, 488	35, 864	406, 686	1, 507	50, 250	23, 184	19	934
es.....	I.	12, 883	961	99	35, 769	2, 862	4, 655	2, 417	31	25, 265	8, 925
	E.	51, 554	27, 410	417	54, 160	9, 727	3, 116	17, 906	608	5, 875	35, 492
acco manufactures.....	I.	560	57	4	376	165	40	37	8	80	1
	E.	1, 060	233	23	164	1, 428	13	520	38	99	4
or food.....	I.	24, 215	70	11	63	81	2	6, 625	6	445	2
	E.	189	314	34	2, 986	702	846	737	13	296	10
aterials	I.	49, 537	53, 023	561	7, 745	50, 876	2, 586	60, 402	574	75, 260	104
	E.	33, 726	4, 780	9, 857	6, 504	9, 664	25	7, 276	3, 568	14, 573	0
	I.	279, 320	22, 034	7, 828	30, 210	15, 476	1, 541	30, 620	1, 193	80, 766	10
	E.	102, 128	6, 711	43, 198	9, 347	5, 584	386	21, 023	12, 066	19, 891	30

oods imported into the German Zollverein for home consumption from and exported to different countries, &c.—Continued.

rticles.	Import=I. Export=E.	Russia.	Switzerland.	Remainder of Europe.	United States.	Of all other countries.	Total 1884.		Total 1885.	
							Quantity.	Value.	Quantity.	Value.
		Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*		*Tons.*	
	I.	57,804	10,122	7,767	5	3	205,940	$43,791,000	166,826	$35,693,000
	E.	360	27,208	1	26	4	223,678	38,416,000	183,074	28,503,000
	I.	1,310,702	31,064	103,249	132,849	20,665	3,732,906	205,148,000	3,244,358	178,112,000
f consumption	E.	5,074	96,000	395	16,165	9,955	1,792,793	111,134,000	1,683,346	98,516,000
	I.	5,858	4,696	0	5,908	201	228,896	29,266,000	366,275	29,484,000
	E.	2,730	4,870	20	12	25	58,794	13,254,000	57,672	12,007,000
	I.	1,290,890	3,488	97,736	122,525	15,269	2,963,381	95,125,000	2,451,033	71,882,000
	E.	4,063	45,708	18	7	1,473	249,888	6,699,000	198,140	3,934,000
	I.	5,573	673	0	302	1	65,775	4,886,000	82,390	2,108,000
es	E.	967	3,649	25	146	57	176,128	9,413,000	173,261	8,584,000
	I.	6,434	20,020	5,198	192	8	177,729	10,311,000	189,509	18,444,000
baker's ware	E.	937	6,473	6	384	15	178,219	3,271,000	181,611	3,530,000
	I.	1,605	651	6	9	63	37,561	3,764,000	35,586	3,787,000
	E.	29,145	2,338	29	294	114	237,880	9,343,000	132,176	6,746,000
	I.	19	410	2	692	7,240	126,226	32,039,000	134,751	29,687,000
s	E.	1,989	3,642	12	161	25	19,829	911,000	18,823	808,000
	I.	131	17	.....	47	230	6,906	525,000	7,129	544,000
	E.	8,032	12,965	165	8,821	1,691	689,212	115,756,000	635,320	40,373,000
	I.	33	190	282	37	78	89,399	14,646,000	86,496	12,565,000
up	E.	2,153	16,928	105	6,242	5,980	271,677	18,910,000	304,400	19,053,000
	I.	20	274	0	15	5	1,661	541,000	1,743	719,000
mineral waters, table oils	E.	48	85	16	79	522	4,341	1,440,000	4,860	1,262,000
	I.	152	49	25	3,012	570	35,382	14,292,000	39,228	15,897,000
	E.	7	645	4	19	53	6,825	2,137,000	7,802	2,218,000
	I.	53,316	2,051	354	2,286	29,790	388,570	21,594,000	361,844	19,346,000
co manufactures	E.	7,357	5,909	11	75	83	103,368	6,099,000	101,863	5,962,000
	I.	73,904	5,868	366	17,933	11,157	578,232	17,213,000	544,794	1,187,000
r food	E.	3,262	13,358	12	17,097	15	254,108	4,573,000	131,421	3,194,000
terials										

Volume of goods imported into the German Zollverein for home consumption from and exported to different countries, &c.—Continued.

Articles.	Import=I. Export=E.	Parts of German Empire not included in the German Zollverein.	Belgium.	Denmark.	France and Algiers.	Great Britain.	Italy.	Netherlands.	Norway and Sweden.	Austria-Hungary.	Portugal and Spain.
		Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
.....	I.	362, 264	132, 354	1, 501	38, 278	1, 551, 928	20	41, 463	1, 398	3, 828, 104	1
hemical industry.....	E.	853, 322	826, 207	23, 427	1, 693, 144	10, 095	76, 838	2, 850, 460	7, 745	2, 484, 433	1, 870
ulphur, &c.....	I.	453, 180	114, 195	3, 736	67, 705	135, 306	20, 035	94, 470	193, 826	150, 305	68, 796
, colors, &c	E.	138, 962	36, 399	4, 482	35, 896	40, 822	7, 750	28, 167	9, 541	79, 856	1, 580
ring stuffs.....	I.	124, 942	12, 750	2, 169	20, 597	56, 170	9, 246	18, 389	15, 507	17, 485	67, 762
cinal purposes, sponges	E.	86, 140	23, 055	1, 659	13, 742	9, 764	2, 284	15, 684	2, 920	36, 618	353
.....	I.	42, 294	17, 034	355	29, 060	19, 412	2, 384	16, 328	379	52, 298	106
.....	E.	21, 055	5, 746	1, 379	4, 169	22, 028	1, 476	7, 769	3, 247	18, 123	882
her oils, &c.....	I.	24, 232	18, 007	4	564	3, 561	2, 612	9, 392	173, 974	69, 793	17
	E.	8, 641	1, 152	17	210	399	195	431	184	3, 388	0
akes, lutes, glutens	I.	916	306	6	505	2, 141	213	1, 678	2	1, 000	7
	E.	620	72	95	173	103	95	201	98	431	29
, not for food.....	I.	28, 092	2, 851	279	8, 303	15, 516	1, 772	10, 897	1, 387	4, 764	2
	E.	8, 642	3, 063	513	11, 893	2, 044	1, 905	678	1, 195	5, 616	1
perfumes.....	I.	201, 945	58, 438	13	787	10, 900	153	12, 964	96	1, 625	2
	E.	577	321	115	4, 022	86	435	487	492	2, 839	17
.....	I.	2, 463	235	2	707	1, 748	10	736	6	464	0
.....	E.	3, 769	1, 780	165	569	783	634	872	719	2, 476	84
anufactures of stone and clay industry...	I.	22, 359	7, 999	894	5, 712	25, 047	3, 470	23, 655	1, 992	2, 192	900
	E.	4, 576	814	430	488	4, 276	489	797	543	8, 524	142
anufactures of metal industry.....	I.	175	100	2	1, 025	370	8	142	1	79	0
	E.	3, 344	344	34	227	466	164	368	85	479	27
	I.	184	71	1	10	247	11	95	482	122	0
	E.	1, 048	121	31	55	775	65	772	2	1, 173	42
	I.	120, 306	134, 892	46, 217	118, 865	102, 386	9, 628	55, 441	111, 605	235, 675	3, 672
	E.	682, 837	75, 195	78, 639	167, 829	398, 277	5, 785	202, 824	16, 448	296, 729	4, 264
	I.	44, 427	88, 156	967	147, 702	285, 586	72	349, 879	29, 274	62, 125	351, 613
	E.	93, 528	1, 368, 529	20, 468	751, 778	96, 133	89, 538	135, 666	10, 143	158, 007	48, 612

s imported into the German Zollverein for home consumption from and exported to different countries, &c—Continued.

rticles.	Import=I. Export=E.	Russia.	Switzerland.	Remainder of Europe.	United States.	Of all other countries.	Total 1884.		Total 1885.	
							Quantity.	Value.	Quantity.	Value.
.		*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*		*Tons.*	
	I.	57,896	2,630	.....	171	64	6,018,103	$9,969,000	6,338,489	$10,820,000
	E.	367,758	716,017	4,255	121	669	9,886,111	18,851,000	10,021,460	22,653,000
	I.	32,761	23,835	2,106	231,507	109,271	1,701,068	93,068,000	1,403,434	83,364,000
	E.	32,806	29,630	1,061	12,187	5,905	465,083	64,846,000	479,682	53,852,000
	I.	1,679	1,480	1,629	467	93,991	444,283	20,212,000	42,529	15,323,000
	E.	11,692	15,408	187	2,847	335	222,688	16,676,000	228,577	9,544,000
ndustry	I.	692	2,021	408	2,831	5,602	196,199	17,797,000	210,884	18,522,000
	E.	11,239	4,431	332	5,877	2,307	110,060	21,817,000	108,407	22,289,000
&c	I.	9,041	9,619	0	831	59	316,706	2,611,000	27,085	1,419,000
	E.	114	3,891	1	15	0	18,687	856,000	28,162	811,000
&c	I.	208	142	0	27	80	7,231	7,958,000	8,728	6,204,000
	E.	637	190	60	166	101	3,071	5,770,000	4,780	5,959,000
uffs	I.	6,823	9,177	11	28,957	7,776	127,613	5,558,000	107,038	5,357,000
	E.	5,491	783	42	2,461	48	44,375	1,713,000	43,478	1,386,000
urposes, sponges	I.	12,522	608	0	196,659	84	497,112	21,353,000	534,163	21,182,000
	E.	305	1,501	21	22	17	11,257	1,980,000	7,278	1,535,000
	I.	34	315	0	15	2	6,827	1,381,000	6,506	1,230,000
	E.	1,082	830	84	243	24	14,109	2,255,000	15,361	2,021,000
ls, &c	I.	1,680	316	55	1,699	1,390	99,378	14,428,000	101,307	12,916,000
	E.	1,528	1,937	108	477	75	25,104	4,297,000	26,678	3,735,000
, lutes, glutens	I.	17	41	0	1	1	1,962	718,000	1,989	573,000
	E.	142	394	187	39	536	6,776	5,012,000	5,581	2,321,000
t for food	I.	0	16	0	0	221	1,490	457,000	514	169,000
	E.	482	163	86	19	2,459	7,293	2,831,000	8,467	3,727,000
fumes	I.	45,802	40,398	124	7,154	10,255	1,054,556	11,372,000	1,010,258	12,232,000
	E.	86,789	86,134	2,234	22,344	9,236	2,124,494	28,156,000	2,111,732	24,980,000
	I.	28,925	1,425	1	1,105	3,679	1,388,001	31,103,000	1,346,081	40,474,000
nufactures of stone and clay industry	E.	136,060	55,105	24,057	67,989	72,067	3,127,681	97,023,000	3,003,473	82,412,000
	I.									
nufacture of metal industry	E.									

Volume of goods imported into the German Zollverein for home consumption from and exported to different countries, &c.—Continued.

Articles.	Import=I. Export=E.	Parts of German Empire not included in the German Zollverein.	Belgium.	Denmark.	France and Algiers.	Great Britain.	Italy.	Netherlands.	Norway and Sweden.	Austria-Hungary.	Portugal and Spain.
		Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
l manufactures of the wood-cutting and	I.	100, 111	11, 425	766	11, 827	9, 145	1, 217	15, 854	237, 477	714, 708	2, 979
	E.	100, 446	110, 807	6, 128	188, 791	36, 871	2, 864	81, 344	2, 158	47, 977	572
manufactures of the paper industry	I.	9, 050	8, 904	1, 105	3, 097	1, 818	47	4, 288	758	6, 721	5
	E.	50, 614	12, 360	1, 677	11, 479	36, 367	2, 802	8, 302	1, 427	8, 616	813
manufactures of the leather and fur goods	I.	22, 916	14, 967	755	6, 020	9, 380	684	4, 195	403	5, 600	91
	E.	7, 871	2, 140	406	4, 853	2, 930	934	1, 424	389	6, 326	242
anufactures of the textile and felt indus-	I.	42, 887	75, 733	195	19, 045	123, 807	17, 240	19, 279	68	29, 425	23
	E.	30, 560	14, 301	4, 246	33, 735	28, 586	4, 065	10, 582	4, 683	43, 948	1, 667
anufacture of caoutchouc and wax in-	I.	1, 144	95	1	207	2, 446	0	146	3	64	29
	E.	728	136	75	165	695	113	222	141	526	51
olstered, carriages and furniture	I.	350	20	17	88	31	1	843	.....	90	0
	E.	280	96	2, 609	957	6	189	1, 176	6	696	818
struments, and apparatus.....	I.	6, 665	3, 513	158	2, 385	20, 670	32	1, 066	150	1, 542	6
	E.	14, 261	4, 400	1, 946	14, 092	3, 060	7, 815	5, 721	2, 570	10, 861	2, 089
nts	I.	35	9	2	92	39	12	11	1	113	0
	E.	1, 501	310	145	458	1, 460	245	430	199	298	71
nd fine arts	I.	693	96	58	505	192	100	185	42	1, 180	1
	E.	2, 029	231	158	616	869	203	497	188	3, 630	34
/	I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	E.	219	.....	1	1	4	3	20	2	1	0
.....	I.	2, 092, 560	894, 233	92, 478	585, 558	2, 445, 905	74, 560	1, 013, 591	606, 835	5, 924, 717	433, 240
	E.	2, 692, 360	2, 537, 627	225, 126	3, 058, 720	1, 200, 253	207, 884	3, 466, 805	150, 282	3, 375, 458	100, 052

ds imported into the German Zollverein for home consumption from and exported to different countries, &c.—Continued.

icles.	Import=I. Export=E.	Russia.	Switzerland.	Remainder of Europe.	United States.	Of all other countries.	Total 1864.		Total 1885.	
							Quantity.	Value.	Quantity.	Value.
ctures of the wood-cutting and	I.	*Tons.* 864,257	*Tons.* 9,199	*Tons.* 47	*Tons.* 20,666	*Tons.* 8,159	*Tons.* 2,008,820	$30,541,000	*Tons.* 2,738,600	$34,783,000
	E.	6,427	64,870	558	616	667	650,596	34,657,000	601,863	24,700,000
tures of the paper industry	I.	10,958	1,684	.....	32	14	48,483	3,211,000	51,026	3,058,000
	E.	3,560	5,370	192	10,346	1,350	154,275	19,846,000	141,660	20,259,000
ures of the leather and fur goods	I.	6,056	2,244	37	1,375	2,993	77,716	45,120,000	81,271	39,766,000
	E.	1,400	2,811	296	815	374	32,690	60,668,000	30,622	52,132,000
tures of the textile and felt in-	I.	108,616	9,048	115	38,611	50,696	525,141	243,286,000	533,563	215,[illegible],000
	E.	9,928	9,100	1,454	7,452	4,130	208,438	231,646,000	209,382	209,116,000
tures of caoutchouc and wax in-	I.	28	27	0	26	17	4,233	6,445,000	3,829	5,726,000
	E.	200	193	49	22	41	3,357	5,265,000	3,376	5,615,000
	I.	3	149	.....	21	0	1,613	146,000	805	208,000
	E.	28	45	1,031	1	308	8,346	927,000	5,920	1,030,000
red, carriages and furniture	I.	187	3,050	0	907	1	40,332	11,286,000	38,073	10,462,000
	E.	12,424	3,099	1,982	766	2,853	98,679	32,533,000	86,244	27,567,000
ents, and apparatus	I.	2	18	1	1	1	337	3,437,000	388	4,677,000
	E.	239	107	147	1,100	214	6,984	23,667,000	7,319	18,477,000
	I.	130	505	1	26	1	3,715	5,201,000	3,691	5,412,000
	E.	973	763	45	490	72	10,798	13,207,000	11,505	14,719,000
ne arts	I.	.....	.....	.....	.....	.....	.....	.....	.....	.....
	E.	7	0	0	1	18	277	203,000	77	101,000
	I.	2,659,346	143,318	114,168	454,677	246,766	17,787,766	781,813,000	17,867,330	711,613,000
	E.	719,579	1,113,779	37,780	157,612	107,911	19,151,756	778,117,000	18,814,023	693,831,000

GERMANY'S TRADE WITH THE UNITED STATES.

The exports can be seen from the inclosed Exhibits B[a] and B[b] and C for the year ending September 30, 1886. The imports (special commerce) from the United States, but for the calendar year 1885, are reported by German statistics, the last obtainable, as follows:

Total imports	100 kilograms	4,104,757
Exports to United States	do	1,695,997
Value of imports	marks	121,766,000
Value of exports	do	155,125,000

As chief articles imported from the United States are mentioned:

Articles.	Value.	Articles.	Value.
	Marks.		*Marks.*
Cotton and cotton goods	52,858,000	Drugs, dyewoods, and stuffs	2,718,000
Petroleum	29,060,000	Hair of horse, human	944,000
Oil, lard, &c	11,084,000	Animal products	556,000
Grain	9,555,000	Copper and copper articles	707,000
Groceries, spices, confectionery, &c	4,165,000	Machines, vehicles, engines	619,000
Tar, pitch, rosin	2,145,000	Leather and leather goods	397,000
Hides and skins	2,133,000	Ores, earths, precious metals	371,000
Wood, &c	3,649,000		

Remarkable appears the discrepancy (in the total amounts of exports and imports above stated) between volume and value. While considering volume, imports from the United States exceed very considerably exports to the United States; the value of goods exported to the United States exceeds the value of goods imported from there (as stated on page 85) by about 34,000,000 marks.

The items of value set forth as highest amounts for articles exported to and imported from the United States are the following:

Articles.	Value.	Articles.	Value.
Exports.		*Imports.*	
	Marks.		*Marks.*
Silk and manufactures of silk	40,790,000	Cotton	52,858,000
Manufactures of cotton	22,248,000	Petroleum	29,060,000
Manufactures of wool	18,938,000	Lard, &c	11,084,000
Chemicals, &c	12,715,000	Grain	9,555,000
Juices, &c	9,355,000		
Manufactures of iron	8,499,000		
Manufactures of leather	4,473,000		
Manufactures of glass	5,859,000		
Manufactures of linen	5,131,000		

REVENUES AND EXPENDITURES OF THE GERMAN EMPIRE.

FF.—*Estimates of the expenditures of the German Empire for the fiscal year ending March 31, 1887.*

For what expended.	Amount.	For what expended.	Amount.
Imperial Diet	$90,368		
Imperial chancellor and et			

FF.—*Estimates of the expenditures of the German Empire, &c.*—Continued.

For what expended.	Amount.	For what expended.	Amount.
Imperial office of the interior—continued.		Navy department—continued.	
Statistical office	$159,365	Additional allowances for boarding	$148,512
Maintenance of standard measures and weights	24,133	Surgery and medicines	132,090
Board of health	30,892	Traveling, marching, &c	82,586
Patent office	168,123	Instruction	29,750
Board of insurance	47,219	Wharves	3,370,389
	1,845,313	Ordnance	464,195
		Pilotage, tonnage, light-houses	44,625
War department	81,642,735	Contingent expenses	36,676
			8,830,086
Navy department:		Judiciary	463,077
Admiralty	136,683	Treasury department	37,017,259
Hydrographic office	36,009	Railroad department	70,734
German coast survey office	53,669	Department for debts of Empire	4,355,995
Local equipment office	45,125	Auditing and comptrolling tribunal	126,092
Jurisdiction	6,592	General pension fund	5,200,324
Religious service	10,377	Invalid fund of the Empire	6,416,861
Military employés	1,732,093		
Repairs of vessels	1,407,008	Total of ordinary expenditures	147,848,218
Provisions	750,343	Extraordinary expenditures	16,805,370
Clothing	23,015		
Garrisons	189,734	Grand total of expenditures	164,653,588

GG.—*Estimates of the revenues of the German Empire for the fiscal year ending March 31, 1887.*

Source.	Amount.	Source.	Amount.
Customs and taxes	$93,201,205	Interest from invested funds of the Empire	$376,040
Imperial stamp taxes	7,232,106	From deficiency appropriations	11,892,788
Surplus receipts of post-office and telegraph department	6,797,994	Total amount of the quota paid by the several states of the Empire	33,133,979
Surplus receipts of Government printing office	253,637	Total revenues	165,979,320
Amount of earnings from railways of the Empire	4,247,681	Total expenditures	164,653,588
From the Imperial Bank	582,505	Excess of expenditures	1,325,732
Sundries	1,844,524		
From the invalid fund of the Empire	6,416,861		

HH.—*Comparative statement, showing the amount of duties on goods imported into the German Zollverein, collected during the years 1884 and 1885.*

[Arranged according to the largeness of the amounts.]

Articles.	Amount of duty.		Percentages.	
	1885.	1884.	1885.	1884.
Coffee and coffee substitutes (except chicory)	$11,334,445	$10,636,607	19.70	20.23
Tobacco, manufactures of tobacco	8,243,225	7,443,146	14.33	14.15
Petroleum and other mineral oils, n. o. p. f	7,381,320	6,790,576	12.83	12.82
Grains and other agricultural products	7,267,857	5,751,828	12.63	10.94
	3,144,391	2,176,257	5.47	4.14
	1,561,307	1,513,002	2.71	2.88
	595,512	880,090	1.09	1.67
			1.00	1.01

HH.—*Comparative statement showing the amount of duties on goods, &c.*—Continued.

Articles.	Amount of duty.		Percentages.	
	1885.	1884.	1885.	1884.
Salt	692,936	747,015	1.20	1.42
Rice	669,464	699,143	1.16	1.33
Woolen goods	551,192	403,563	0.96	0.94
Combed wool, wads, and yarn of wool	547,890	597,962	0.95	1.00
Flax-seed oil, rape-seed oil, &c	536,391	521,595	0.93	0.90
Southern fruit, dried	528,872	525,331	0.93	1.00
Cotton goods	509,827	531,528	0.89	0.99
Leather and leather goods	429,574	406,931	0.75	0.77
Tea	395,199	358,071	0.69	0.68
Linen yarn and thread	369,911	333,946	0.64	0.64
Fruit, seed, berries, &c., dried, baked, &c	351,802	329,457	0.61	0.63
Sugar, sirup, and molasses	342,542	333,609	0.60	0.63
Machines, engines, &c	341,125	359,806	0.59	0.68
Mill-ground articles and bakers' ware	327,689	449,090	0.57	0.85
Drugs, medicines, dye-stuffs	297,919	311,988	0.52	0.59
Cocoa	275,772	245,280	0.48	0.47
Fancy goods	254,573	203,983	0.44	0.39
Cheeses	217,565	207,703	0.38	0.40
Meat, fresh and prepared	211,251	154,595	0.37	0.29
Linen and linen goods	205,361	267,781	0.36	0.49
Eggs	198,710	166,333	0.35	0.32
Clothes, linen underclothing, trimmings	197,877	177,211	0.34	0.34
Butter, also artificial	193,494	170,974	0.33	0.34
Glass and glassware	190,718	176,573	0.33	0.34
Oranges, lemons, &c	169,749	152,857	0.30	0.29
Preserved articles of consumption	135,919	172,510	0.24	0.33
Beer	128,756	133,647	0.22	0.25
Stones and stoneware	122,335	91,800	0.21	0.17
Paper and pasteboard	114,362	114,263	0.20	0.24
Manufactures of copper and other not precious metals, n. o. p. f.	103,635	104,930	0.18	0.20
Caviare and substitutes	93,046	70,591	0.16	0.13
Codfish, dried	84,803	37,571	0.15	0.07
Blubber and train oil	81,460	77,284	0.14	0.15
Oysters and shell-fish, &c	81,055	49,209	0.14	0.09
Manufactures of clay	79,939	60,949	0.14	0.11
Cocoa mass, chocolate, &c	79,794	73,461	0.13	0.14
Starch, &c	73,301	64,070	0.13	0.12
Manufactures of straw and bast	68,051	57,492	0.12	0.11
Hops	67,487	64,950	0.12	0.12
Soap, perfumery	67,206	66,364	0.12	0.13
Confectionery	66,031	61,433	0.12	0.12
Palm and cocoa-nut oil	58,387	51,977	0.10	0.10
Table oils	56,166	53,040	0.10	0.10
Lees, yeast	51,676	44,560	0.09	0.08
Oil-cloth, &c	48,453	53,171	0.08	0.10
Honey	47,752	22,632	0.08	0.04
Stearine, palmitine, &c	45,230	72,144	0.08	0.14
Caoutchouc and gutta percha, &c	43,283	40,291	0.08	0.08
Tallow and animal fats	39,653	44,794	0.07	0.09
Wax	32,406	13,427	0.06	0.03
Hair, and manufactures of	27,846	24,239	0.05	0.05
Pianos and other musical instruments	23,262	23,849	0.04	0.05
Railroad cars	13,299	8,391	0.02	0.02
Ropemakers' ware	13,217	22,812	0.02	0.04
Candles	10,451	9,418	0.02	0.02
Brushmakers' ware	10,126	10,131	0.02	0.02
Zinc and zincware	7,268	7,152	0.01	0.01
Furs	6,235	6,455	0.01	0.01
Vinegar	3,677	4,334	0.01	0.01
Tin and tin articles	3,394	4,098	0.01	0.01
Lead and lead articles	3,149	2,415	0.01	0.01
Grape sugar, glucose, &c	460	300	.....	.....
Play-cards	228	414	.....	.....
Beverage, artificially prepared	274	149	.....	.....
Wrecked articles	79	546	.....	.....

II.—*Stamp-tax levied on play-cards in the German Empire (fiscal years 1880–'81 to 1884–'85).*

Fiscal year.	No. of card factories.	Play-cards sold.		Subject to tax.		Exported.	
		Sets of less than 37 cards.	Sets of more than 36 cards.	Sets of less than 37 cards.	Sets of more than 36 cards.	Sets of less than 37 cards.	Sets of more than 36 cards.
1	2	3	4	5	6	7	8
		Sets.	*Sets.*	*Sets.*	*Sets.*	*Sets.*	*Sets.*
1880–'81	64	3, 432, 300	1, 039, 300	3, 231, 500	246, 900	200, 700	792, 400
1881–'82	61	3, 289, 300	942, 500	3, 110, 000	238, 200	179, 300	704, 300
1882–'83	60	3, 204, 300	1, 058, 800	3, 106, 000	233, 400	158, 300	825, 400
1883–'84	61	3, 346, 000	1, 236, 100	3, 151, 000	208, 700	195, 600	1, 027, 400
1884–'85	61	3, 529, 000	1, 278, 400	3, 292, 100	203, 500	236, 900	1, 074, 900

Fiscal year.	Imports.		Total sets subjected to tax (exclusive of columns 5+9 and 6+10).		Tax collected.	
	Sets of less than 37 cards.	Sets of more than 36 cards.	Sets of less than 37 cards.	Sets of more than 36 cards.	Total.	Per capita.
1	9	10	11	12	13	14
	Sets.	*Sets.*	*Sets.*	*Sets.*		*Cents.*
1880–'81	25, 500	5, 600	3, 257, 000	252, 500	$262, 600	5
1881–'82	16, 000	6, 100	3, 126, 000	244, 300	252, 200	5
1882–'83	15, 800	7, 100	3, 121, 800	240, 500	251, 500	5
1883–'84	22, 000	7, 000	3, 173, 000	215, 700	252, 200	5
1884–'85	16, 000	8, 900	3, 308, 100	212, 400	261, 300	5

KK.—*Area, population in 1885, and yearly average of increase of population since 1871.*

States.	Area (exclusive of parts of seas), square kilometers.	Population December 1, 1885.	Yearly average of increase of population.		
			1871–'75.	1875–'80.	1880–'85.
Prussia	358, 257, 100	28, 313, 833	1.04	1.16	0.74
Bavaria	75, 863, 500	5, 416, 180	0.80	1.02	0.49
Kingdom of Saxony	14, 992, 900	3, 179, 168	1.92	1.48	1.34
Kingdom of Wurtemberg	19, 503, 700	1, 995, 168	0.85	0.93	0.24
Baden	15, 081, 100	1, 600, 839	0.77	0.82	0.39
Hesse (Grand Duchy)	7, 680, 300	956, 170	0.90	1.14	0.43
Mecklenburg-Schwerin	13, 803, 800	575, 140	0.18	0.82	0.07
Saxe-Weimar	3, 592, 600	313, 668	0.58	1.10	0.26
Mecklenburg-Strelitz	2, 929, 500	98, 371	0.34	0.94	0.33
Oldenburg	6, 420, 200	341, 250	0.37	1.10	0.22
Brunswick	3, 690, 400	372, 580	1.20	1.29	1.29
Saxe-Meiningen	2, 468, 400	214, 697	0.86	1.25	0.72
Saxe-Altenburg	1, 323, 800	161, 129	0.65	1.22	0.77
Saxe-Coburg-Gotha	1, 968, 100	198, 717	1.16	1.28	0.41
	2, 347, 400	247, 603	1.21	1.70	1.25
		73, 623	0.11	1.05	0.70
			0.38	0.92	0.89
					0.09

LL.—*Report on the average condition of the German banks of issue during the year* 1885.

ık.	Liabilities.				Assets.							
	Stock capital.	Reserve fund.	Notes in circulation.	Total liabilities.	Specie on hand.	Treasury notes on hand.	Notes of other banks on hand.	Bills of exchange.	Collaterals.	Stock and bonds.	Other assets.	Total assets.
.....	$28,560,000	$5,030,844	$179,112,374	$268,765,308	$138,727,344	$5,287,220	$3,485,034	$92,529,640	$14,820,022	$9,975,532	$6,217,592	$271,036,304
Bres-	714,000	142,800	620,228	2,337,874	247,996	2,618	99,246	1,144,066	878,220	.....	10,710	2,382,856
.....												
ogne	714,000	178,500	488,852	2,190,314	182,308	4,284	35,414	1,807,134	109,956	4,284	90,678	2,235,058
ıgde-	714,000	143,752	556,060	1,623,636	211,344	4,998	80,692	877,030	247,758	219,674	15,232	1,636,718
.....												
ntzic	714,000	178,500	674,968	3,264,170	240,856	238	131,852	1,580,320	500,990	73,304	829,668	3,357,228
Bank	714,000	178,500	392,938	1,542,954	136,850	238	5,206	1,012,928	304,640	.....	110,670	1,570,562
.....	2,856,000	285,124	1,167,152	6,563,564	422,926	27,896	65,450	3,954,370	268,940	179,214	1,650,768	6,563,564
.....	4,080,034	930,104	2,430,932	9,351,496	924,110	38,586	164,458	5,861,940	629,986	1,114,078	839,902	9,564,030
ssue.	1,785,000	236,096	15,286,978	20,334,720	7,846,622	21,896	784,068	10,775,212	496,944	64,736	347,242	20,334,720
den.	7,140,000	938,672	10,343,480	21,250,068	4,243,302	105,424	1,898,764	12,831,770	668,066	48,314	1,454,418	21,250,068
k of	714,000	53,550	670,446	1,973,258	243,950	4,284	132,566	1,007,930	339,864	15,470	229,194	1,973,258
.....												
aitz.	121,380	30,266	120,428	995,078	49,742	2,380	20,468	752,080	30,940	31,416	108,052	995,078
of	2,142,000	128,282	4,598,160	7,203,170	2,055,606	6,188	193,732	4,603,634	97,818	84,014	162,078	7,203,070
....												
....	2,142,000	361,284	3,001,418	5,803,392	1,095,772	4,998	33,706	4,124,778	160,696	8,092	421,260	5,803,392
any	3,729,936	413,168	3,576,188	7,963,528	1,272,348	4,046	130,662	4,837,826	209,916	970,326	537,404	7,962,528
....	2,499,000	94,486	585,718	4,208,792	154,224	3,570	38,556	2,245,768	538,594	.....	1,249,500	4,230,212
of	571,200	22,372	151,368	1,722,406	72,590	1,666	50,694	1,060,052	113,526	138,992	322,728	1,760,248
....												
...	3,952,466	203,490	959,616	8,949,230	353,906	1,190	32,606	7,632,898	478,618	386,036	206,822	9,092,076
...	63,863,016	9,549,750	224,745,304	376,042,380	158,422,796	5,509,700	7,382,284	158,639,376	20,890,494	13,313,482	14,803,838	378,970,970
...	.....	.....	53,435,284	.....	.....	.....	.....	.....	.....	.....	.....	.....

MM.—*European railways.*

Country.	Length.	Area.	Total population.	Population per square kilometer.	Number of inhabitants per kilometer of railway.
	Kilometers.	*Sq. kilos.*			
German Empire	35,749	540,522	45,862,000	15,100	1,283
Austria-Hungary	20,535	622,309	38,800,000	30,300	1,889
Russia	23,940	5,016,024	83,909,945	209,500	3,504
Finland	1,181	373,604	2,142,093	316,300	1,814
Sweden	6,600	442,818	4,603,595	67,100	697
Norway	1,562	318,195	1,916,000	203,700	1,226
Denmark	1,817	38,283	2,028,000	21,000	1,116
Great Britain and Ireland	30,058	313,844	35,611,816	10,400	1,184
Netherlands	2,118	33,000	4,225,065	15,600	1,995
Belgium	4,320	29,455	5,720,807	6,800	1,324
Luxemburg	366	2,587	209,570	7,000	572
France	29,469	528,572	37,672,048	17,900	1,278
Switzerland	2,798	41,346	2,889,826	14,800	1,032
Spain	8,257	507,036	16,902,621	61,500	2,048
Portugal	1,520	92,829	4,708,178	61,100	3,097
Italy	9,602	286,588	29,010,652	29,800	3,021
Greece	22	64,688	2,018,978	2,940,400	91,771
Bosnia and Herzegovina	370	52,102	1,184,000	140,800	3,200
Bulgaria	222	63,972	2,007,919	288,100	9,044
Roumania	1,513	131,402	5,376,000	86,800	3,553
European Turkey	1,173	209,722	5,500,000	178,800	4,690
Whole Europe	183,186	9,708,898	332,299,113	52,900	1,814

WORKINGMEN'S COLONIES.

In my last annual report I took occasion to call attention to so-called workingmen's colonies, established for the purpose of correcting the evil of tramping. The number of such colonies has been increased by one, in Schneckengrün, Saxony. The entire number of colonies in Germany is stated to be fifteen, and the number of persons remaining October 31, 1886, in the different stations, 1,553. It must be borne in mind, however, that during the year thousands found shelter and employment.

The colonies in Hanover, now three years in operation, admitted, within the last three years, 1,192 persons.

The receipts, mostly the result of local contributions, reached 83,682.47 marks; the expenditures, 82,333.79 marks; the average expense for each person, inclusive of pay for his work, amounted to about 1.15 marks per day.

In other colonies the expenses did not exceed 55 pfennigs per day; one in Danelsberg managed to support people at 33½ pfennigs per day, after deducting pay for work. It is said that the colonies are in a prosperous condition, and receive much encouragement from charitably disposed persons. Several new colonies are under contemplation. Rev. von Bodelschwingh, a well known clergyman of Bielefeld, is the originator of the "workingmen's colonies."

while sales and exports make a tolerable fair showing, this is chiefly attributable to low wages and the consequent possibility of underselling foreign competitors.

And here permit me to interline, that undervaluations are practiced not merely with a view of defrauding our revenue, but also to drive objectionable competitors out of the market, making it more difficult every day to consuls to ascertain correct market values; not to mention the numerous failures (bankruptcies), which frequently cause a glut in certain articles of manufacture and a corresponding depreciation of prices.

I notice a feverish anxiety to produce cheap goods, and if much of the latter, notwithstanding our high tariff, can be sold in the United States, with greater or smaller profits, it demonstrates the fact that German goods are in demand more on account of their cheapness than quality.

Germany is more than ever dependent upon foreign markets for the disposal of its manufactures. Its protective policy may secure to it the advantages of the home market, though my statements show that the anticipated rise, as, for instance, in grain and many other articles of home origin, has not been realized. On the contrary, my report shows that the general effect of the protective policy is far from having met all the anticipations of its advocates.

My foregoing report treats trade affairs from a strictly objective standpoint and presents the same under the light of present observations.

I cannot say, though it is evident, that in the great strife among the nations, especially of Europe, a permanent commercial policy must be considered as doubtful. There is a drifting tendency in all directions, and positive calculations as regards the future impossible. The factors at work on this side of the Atlantic are of so conflicting and uncertain a character that a report can only treat upon present appearances.

F. RAINE,
Consul-General.

UNITED STATES CONSULATE GENERAL,
Berlin, January 10, 1887.

MAYENCE.

Report of Commercial Agent Smith.

The reports of the various chambers of commerce in this neighborhood for the year 1885 having been recently published, I have the honor to herewith make to you my annual report for the present year based thereon and upon information drawn from other sources.

GENERAL SITUATION.

Money is cheap, prices are low, profits are slight, competition is severe, and overproduction is the cry. Such is the designation to be applied to the general state of trade in Germany at the present moment, so far as I am informed respecting it. [illegible]

eral years past it has been keeping up under very discouraging conditions, and now it has reached that pass when wholesale discharges of workmen have to be made. Few failures in the commercial and industrial centers appear to take place, but there is a general cry of unprofitable business. Prices during the present year have been the lowest they have been for seven or eight years, but some improvement in them seems to be just now taking place. Since 1880 there has been a gradual decline of prices in almost all the leading articles of merchandise, in wheat, rye, barley, oats, sugar, coffee, rice, cotton, wool, and so on, in some a marked decline. The average price of wheat during the year 1880, for instance, as reported by the statistical bureau at Berlin, was 230.7 marks ($54.90) per 1,000 kilograms (2,204 pounds); during 1885 only 168.4 marks ($40). Raw sugar brought during 1880 per 100 kilograms (220 pounds) 65.3 marks ($15.54); in 1885 but 49 marks ($11.66). On all articles of luxury the steady sinkage of the rate of interest and the consequent rise in value of all safe securities paying good rates of interest of course exerts a bad effect, as the capitalist's income thus becomes limited, and his expenditures more carefully made.

The opponents of the present tariff attribute all their ills to increased customs duties—to protection; but the customs duties imposed by the Government are moderate, viewed from an American standpoint, when taken all in all. High duties are ruining trade, they say, and raising up barriers of non-intercourse with other nations; they are making all the countries of the world our commercial enemies, and bringing down upon us years of industrial depression. But at the same time that this is being said, the English are exclaiming, as will appear from their press, "Look at the indefatigable Germans! See what giant strides they are making in the direction of commercial supremacy! Behold the progress they have made in the last few years! Trade languishes with us; our furnaces are being shut up and our mills closed, all largely due to the thrift and perseverance of the plodding Germans. They are looking abroad upon the world as a field and jostling us out of our markets by their energy and push; in our own island home, even, are we not safe; but behold them with stolid assurance selling their wares cheaper than our own, and filling our commercial houses with the young men of the Fatherland, who speak a polyglot tongue, to the exclusion of the young bloods of Britain, who are familiar with but the one their mothers taught them."

Business is said to be very much depressed in England, and this condition is largely due, it is claimed by many there, to German competition. The Germans, the English say, are content with smaller profits than they are, speak all languages, have clerks who work for lower wages, and are bound to no old, useless traditions. They are with their goods wherever there is a demand for them, and where there is no demand they do their best to create one. Of the entire imports into England, Germany furnishes about £25,000,000 I believe; the United States about £90,000,000.

20th ultimo I think should be incorporated in this report, and I therefore give the whole of it, word for word, as follows:

M. Amedée Marteau, who was lately charged by the French minister of commerce and industry to study the industrial evolution of Germany during the last ten years, has presented a striking report on this subject. After referring to the uneasiness and excitement created in France by the rapid development of German industry, and the severe competition of between German and French goods, not in foreign markets only but in France itself, M. Marteau says that this change in Germany became apparent in 1877. Up to that date German industry was passing through a transformation period, a period of slow and difficult preparation, during which even the most competent observers were deceived. Between 1872 and 1877 the balance of the foreign trade of the German Empire was largely adverse to it. In 1872 this balance of trade showed against Germany 972,000,000 marks; in 1874 this increased to 1,441,000,000, and in 1877 it was 1,101,000,000. Up to this last date German industry was preparing, but had not yet entered upon the scene; the Germans improved their old or created new machinery, they perfected their appliances, they placed themselves abreast with progress, and soon found themselves able to compete with the best manufactories abroad. Properly speaking, says M. Marteau, it was only in 1878 that Germany engaged seriously in the struggle. In 1877, as has been said, the German Empire imported 1,101,000,000 marks more than it exported. In 1880 the balance was reversed and was in favor of exports; but it is only fair to remark that this year was a very unfavorable one for foreign trade with Germany, for the new customs tariff, called the autonomous tariff, was applied then and large stocks of foreign goods had been accumulated in anticipation of the higher duties of this tariff. But the imports, which between 1874 and 1877 varied between 3,673,000,000 and 3,877,000,000 marks, declined steadily down to 1884, when they amounted to 3,284,900,000 marks, while the exports, which in 1874 were 2,532,800,000 marks, had increased in 1884 to 3,269,400,000 marks, an average increase for each of the ten years of about 80,000,000 marks. Thus, as German imports have steadily decreased while exports have increased, Germany is now manufacturing much which she formerly purchased abroad, and is, besides, sending abroad manufactures which she never sent before.

Whatever opinion may be entertained respecting the balance of a country's foreign trade, adds M. Marteau, it would be idle to deny that the growth of German exports, especially in the last five years, at such a rapid rate is a remarkable fact, which should fix the attention of economists and of those whose duty it is to watch the great movements of trade. This evolution manifested itself immediately in the commercial relations between Germany and France. Up to 1877 the latter sent Germany more than it received. In 1877 the balance in favor of France was 77,000,000 francs; but in 1878 Germany sold France more than it bought from her. In 1880 the balance in favor of Germany was 75,000,000 francs, and in 1884 89,000,000. Thus, in ten years a difference of 166,000,000 francs has been produced in the Franco-German trade, French exports to Germany having fallen from 486,000,000 to 328,000,000, while imports from Germany have in the same period risen from 349,000,000 to 417,000,000; in other words, France sells Germany 158,000,000 worth less than she did ten years ago and buys 68,000,000 worth more. The idea, therefore, that France is refusing to buy German products is the reverse of correct. The following short table will show the change:

Trade between France and Germany 1875–'83.

Years.	Exports from Germany to France.	Exports from France to Germany.	Difference in favor—	
			Of German exports.	Of French exports.
	Francs.	*Francs.*	*Francs.*	*Francs.*
1875	349,000,000	426,900,000	.....	77,900,000
1876	389,000,000	431,200,000	.....	42,200,000
1877	372,800,000	395,100,000	.....	22,300,000
1878	418,500,000	343,700,000	74,800,000	.....
1879	413,000,000	343,500,000	69,500,000	.....
1880	438,200,000	361,900,000	75,300,000	
1881	454,700,000	382,000,000		
1882				

appear from the following figures. The export of manufactured articles from Germany was:

Years.	Amount.	Years.	Amount.
	Marks.		*Marks.*
1874	841, 800, 000	1880	1, 436, 700, 000
1877	942, 200, 000	1884	1, 730, 000, 000

In the figures chemicals, manufactures, and drugs are not included, as the German official statistics do not place these under manufactured articles. M. Marteau then examines these figures under their main heads, with a view of ascertaining where the main increase in German manufactures has been. The following short table shows this in a striking manner:

Foreign trade of Germany, exports of the principal manufactured articles from 1874–'84.

Articles.	1874.	1877.	1880.	1884.
	Marks.	*Marks.*	*Marks.*	*Marks.*
Pottery, porcelain, glass, and crystal	48, 800, 000	31, 600, 000	67, 500, 000	79, 400, 000
Metal work, iron, copper, zinc, lead, tin (except precious metals)	51, 600, 000	78, 600, 000	136, 000, 000	276, 700, 000
Machines, implements, instruments, &c	79, 200, 000	72, 000, 000	94, 200, 000	136, 700, 000
Skins, hides, and their manufactures	43, 500, 000	63, 900, 000	87, 400, 000	134, 500, 000
Tissues of all sorts, cotton, wool, silk, &c	369, 300, 000	418, 600, 000	675, 900, 000	708, 700, 000
Paper and pasteboards	20, 400, 000	28, 300, 000	52, 800, 000	65, 700, 000
Ironmongery, bijouterie, art objects	38, 400, 000	49, 300, 000	75, 400, 000	99, 400, 000
Total	651, 200, 000	742, 400, 000	1, 189, 800, 000	1, 501, 400, 000

Without entering into numerous details, which would make his report too long, M. Marteau says it is clear from his own observation, as well as from the reports of the French consuls at various German centers, that the Germans are everywhere displaying great activity, and that they hesitate at no sacrifice. In many places the industries are of recent creation, and the machinery and implements are therefore of the latest and best kind. Hence he cannot understand how some economical writers believe that Germany is now passing through an intense and dangerous commercial crisis. The truth, he thinks, is that German manufactures, encouraged by the rapid and unexpected development of exports, have produced more than they can find a ready market for. But, then, overproduction is a frequent incident in the course of trade, and cannot be said to be of a nature to produce, in this instance, a great commercial disaster.

As for the causes of this great development of German trade, M. Marteau refers to the cheapness of certain articles vital to manufacture, such as coal, iron, and wood; the cheapness of labor; the diffusion of capital by means of banks and similar institutions; the spirit of enterprise which is exhibited by so many German merchants, which leads them to establish agencies all over the globe, where they push their wares with untiring energy and perseverance; and, finally and principally, to the commercial and industrial schools of all kinds, which are increasing day by day throughout the Empire. There are now more than 250 of these establishments in Germany, where young men are initiated into the practical and technical knowledge necessary for the industrial careers which they are about to embrace. The textile and metallurgical industries especially are well taught in these technical schools. M. Marteau dwells at some length on the immense mechanical value of these institutions, and says that, owing to them, Germany possesses in an almost equal degree with England so indispensable for every industrial nation, viz: A body of [illegible] hesitate to exile themselves to remote [illegible] of the world's

and M. Marteau believes that this must constantly increase. After giving some details respecting the prices of coal and iron, the report refers to the price of labor. Speaking generally, the writer thinks that in no part of the world do wages adjust themselves so readily and smoothly to the necessities of competition—that is to say, the workmen accept more easily than elsewhere the relations required by rigorous competition. Difficulties often arise between masters and workmen, but they are fewer and more easily and promptly settled than similar disputes elsewhere. German workmen also live on less than the French, and their wages are therefore less. This is an important item in the consideration of the rapid growth of German industry.

COMPETITION AND OVERPRODUCTION IN GERMANY.

Germany is now simply disturbed, in my opinion, by the present universal business depression and by overproduction. Her tariff may be higher than ever before, but her people buy their food and their raiment cheaper. Competition is too keen in the Empire, and the industrial establishments continue to pour out their goods, notwithstanding the great hue and cry of overproduction that is raised. They talk day and night of overproduction, and yet the man who dares propose a general shortening of the hours of labor and prohibition of work on Sundays becomes a target for the critics. There was much talk last winter about a normal day's work and of prohibiting Sunday labor, but the general feeling was too strong against it, and yet nearly every chamber of commerce and almost every business man in the country is constantly sighing over overproduction. The fierce competition reduces prices to a minimum. Cheap money enables the large establishments to go on producing and extending, while the smaller concerns are forced to the wall, and the business of the many becomes that of the few. That is now said to be the case in Germany. There is an increased production, and consequent intenser competition in all branches of business, leading to an enlargement of the big establishments and limitation and annihilation of the small ones. The purchasing power of the consumer, however, it is maintained, does not thereby become increased, as the rate of interest on money is becoming ever less. The farmer is not benefited, as he, notwithstanding the new protective duties on his products, must sell them at greatly reduced prices. Neither is the merchant, who finds his sales diminished by reason of the capitalist and farmer receiving lower incomes. Nor does the manufacturer profit by it; nor the great mass of workingmen, whose wages, in consequence of the fierce battle for existence, the industrial establishments are unable to raise. While the production increases the consumption remains the same, the market continues stocked and prices keep falling. High duties may perhaps protect the land against the surging world around it, but what is going to protect it against the intense rivalry among its own children?

EFFORTS FOR FOREIGN MARKETS.

Great efforts are being made to procure for the Empire profitable foreign markets, especially as by increased customs duties or other protective regulations the exportations to old markets have been rendered more difficult. The subsidizing of steamships, the reform of the consular service, and the protection which the Government affords to colonial undertakings are all in this direction. [illegible]
expect to do a flour[illegible]

the commerce of the world, now take a more advanced and assuring position, with a prospect of overreaching their competitors. "In union is strength," they are every day perceiving more and more.

As in industrial circles, so among the merchants are increased competition, low prices, and unsatisfactory profits to be noted. A change is taking place, it is said, in the manner of distribution of the producer's products into the consumer's hand. The middle-man is being pressed steadily out of the field, and the wholesale dealer is coming into closer relations with the very small dealers and with consumers. The consumers are often bound together in co-operative societies, and draw their needs from the manufacturers or importers directly, without the interposition of a medium.

WORKINGMAN'S SITUATION.

But although business is in an unsatisfactory state, it does not seem to affect the workingman greatly. Wages remain pretty much the same, and few discharges of hands take place. The stagnant state of the market only serves to make the necessaries of life cheaper, and to enhance the purchasing power of the laborer's money. This is a gratifying feature in the general depression.

GRAIN AND FRUIT CROPS.

The grain and fruit crops of the year were excellent, both in quantity and quality, but the farmer had to sell at very low figures, and found in the produce of his land but little profit. The increased duties on grain brought him little or no relief so far as prices were concerned, unless it kept out foreign exports to an extent to make salable at a fair price what would have had to yield to foreign competition or been forced down to a still lower figure. Agricultural distress prevails throughout Europe, but the German Government considers, I believe, that it is less sensibly felt in Germany than in other countries of Europe. However that may be, the German farmers have to struggle hard to hold their own. Without some sort of protection, the indications now are that they are to be overwhelmed in the future by the rich harvests of Russia, India, and the United States. Every rail laid in Russia or in India renders the transportation of grain easier and cheaper, and tends to force its value downward. The lowering of the taxes on the Suez Canal and the cheapening of ocean freights challenge America to a severe competition in the markets of Europe. What is the European farmer going to do about it? He is confronted by a monster of which his forefathers never dreamed. He has either to abandon the raising of grain altogether on a large scale and turn to other pursuits, or be protected by walls of non-intercourse, or reverse the whole system under which he has been holding and cultivating his land for centuries, and adopt methods which will enable him to battle with his dangerous foes. This last mentioned it is claimed he can do in time, but not all of a sudden, and while doing so must be protected by the Government of his country [illegible]. But "necessity is the mother of in-

accounts, live too expensively. According to the general rule of real inheritance prevailing in Germany, the oldest son receives the estate of his father, but is obliged to provide for his younger brothers, and this leads usually to a heavy mortgage of the estate. Land has been run up altogether too fast in value; the rise has come to a halt, and the present low price of farm products has left the landed proprietor unable to realize a fair interest on his property and pay off his obligations to the other members of his family. He makes, maybe, 2½ per cent. on the money the land represents, while on one-half of it he may have to pay his brothers 4 per cent. This must certainly lead to a general breaking down of the old system of estate holding and give place to something new and better.

BRANDY MONOPOLY PROJECT.

The great theme of discussion during 1886 has been the brandy monopoly project, which has met with bitter and decided opposition, and was, in short, a perfect failure. Only three members voted for it on the second reading in the Reichstag, and a new and improved bill which immediately followed the rejected one met with pretty much the same fate. To meet the constantly growing outlays of the Government new taxes become necessary, and in looking about for a source from which to derive additional revenue it occurred to Prince Bismarck that no subject of taxation exhibited so inviting a field as brandy, which is now but lightly taxed; but instead of simply raising the taxes on brandy the Government proposed to take the manufacture and sale of it into its own hands. Such a measure, of course, met with opposition in every direction. The state desires to buy up at fixed prices all the raw spirits manufactured in the realm, and after refining then retail them at home or export them to foreign countries. The state would thus become enabled to regulate production and grant or withhold licenses at will and decree prices. The Agrarians, however, instead of a state monopoly want to see a monopoly lodged in the hands of the present spirit manufacturers, and brought forward a bill to that effect at the last session of the Reichstag as a substitute for the second governmental proposition. They proposed that the present manufacturers should form a vast association of distillers and the creation of new distilleries be forbidden by law; that the Government pay them about 40 per cent. above the market price for what they turned out, to be gathered together in large tanks or magazines, all expenses connected therewith to be borne by the Government; that from this price the present tax on spirit, less 10 per cent., should be deducted, and an excise duty of 80 pfennigs (19 cents) a liter be collected on the brandy delivered for home consumption. A very nice proposal on the part of the Agrarians in their own interest!

REFORM OF SUGAR TAX.

About as prominent a question at the last session of the Reichstag was the reform of the sugar tax. The Government for a long time has been paying a bounty, as it were, upon sugar, and an urgent de[illegible] has been made for several years past f[illegible]

of sugar instead of 12½, as formerly, but the Government continued to grant a drawback on the basis of 12½. The export drawback thus became an enormous premium to the producers, and the German sugar manufacturers have been able to supply all Europe with cheap sugar, till to protect themselves different states had to increase their duties on foreign sugar. The industry has bloomed and astonishing dividends been paid. But the large profits at last led to overproduction and a crisis in the trade, and the export bounty cost the German Government about $5,000,000. A new law has been passed this year remedying the old to some extent. Under it, from August, 1886, the tax on sugar is to be 1.75 marks (41½ cents) per 100 kilograms (220 pounds). The export drawback upon the same quantity of raw sugar of at least 90 per cent. polarization and upon refined sugar of 90 to 98 per cent. will be 18 marks ($4.28) for the first year, and afterwards 17.25 marks ($4.10). On candies and on sugar in white hard loaves, blocks, and bars, the drawback is 22.20 marks ($5.28) for this year and 21.25 marks ($5.05) hereafter. On all hard sugar and on all white dry sugar in crystal, crumb, or flour form of at least 90 per cent. polarization the bounty is 20.80 marks ($4.95) to August, 1887, and 20.15 marks ($4.79) thereafter.

SUBSIDIZED STEAMSHIP LINES.

Last year it was the steamship subsidy measure, in connection with colonial undertakings, that was the great topic of discussion. This has given place somewhat to the brandy-monopoly agitation, but is still a subject of great interest to the German nation. On June 30 last the first steamer of the new East Asia line was duly gotten off from Bremerhaven, with such ceremonies as were to be expected on such an occasion, and was received at and dispatched from Antwerp with corresponding éclat, making the trip from Bremerhaven to Antwerp in twenty-two hours, a gain of eight hours over the usual time; and on July 14 the first boat of the new Australian line was sent off. The ships of the first line have a speed of 11 knots an hour, so that the post from Berlin to Asia requires thirty to thirty-one days to reach Hong-Kong and thirty-four to thirty-five to get to Shanghai. Those of the Australian line have a speed of 11½ knots an hour. The post will be carried from Berlin to Adelaide in thirty-four days, to Melbourne in thirty-seven, and to Sydney in thirty-eight. At Hong Kong a branch line is to connect, extending to Corea, and at Sydney the line is to connect with one which is to touch the Tonga and Samoan Islands. The choice of Antwerp as a stopping place is very favorably regarded by the people of the Rhineland, as the ships of the Rhine can easily connect therewith. Rotterdam was, however, preferred as being the most accessible to Rhine vessels. Antwerp was chosen in preference to Rotterdam, as it was considered that the water at Rotterdam was not deep enough for the draught of the best steamers.

established, would probably be cordially supported by the German firms scattered all over the world. The capital proposed is about $15,000,000, to be doubled in time, in shares of about $2,500 each.

CANALS.

An increase and improvement of the waterways of the Empire is looked upon as a pressing present necessity by many, and provision has been made for the commencement of three great canals—the connection of the Baltic with the North Sea, of the Spree with the Oder, and of the Ems with the Rhine. The first mentioned is to be built chiefly from military considerations, so that the German iron-clads can get from Kiel to the Atlantic. The two others are to be constructed for commercial purposes. In connection with these there will also be canals built from the Rhine to the Elbe, and from the Oder to the Silesian Mountains. The Agrarians very strongly opposed the canals Spree-Oder and Ems-Rhine, because they feared foreign grain would be more plentifully brought into the Empire by them, but were worsted.

EXPOSITION AT BERLIN IN 1888.

Efforts have been made during the year to put through the project of a national exposition at Berlin in 1888, but the manufacturers of the Empire have shown such an indifference, and even hostility to the enterprise, that the Government refused to give it its support. The city of Berlin agreed to contribute 2,000,000 marks ($476,900) in aid of the enterprise, on the condition that the Imperial Government would add 3,000,000 marks ($714,000) to this sum, and that a guarantee fund of 3,000,000 marks further be raised, but the Imperial Government declined to assist the project, and it accordingly fell through. The Germans seem to think that large expositions in the different countries follow one another too fast, and cost too much money, and besides, this is no time, they say, for an exposition at Berlin, when business is in a very depressed state. The full period for expositions is over, they think. In these there are so many exhibits that the visitor cannot properly inspect and compare all that is to be seen, and the individual exhibitor is lost among his almost countless competitors. Some period of time, they think, should elapse between such expositions, until manufacturers and merchants feel the need of a new exhibition to set forth their progress and new products to the world.

HARVESTS OF 1886.

The grain and fruit crops of 1885, as said above, were excellent, as were potatoes also. This year grain will not turn out quite so well, it is reported, although the crops will be good, and fruit in this vicinity is exceedingly poor. Taking 100 as an average harvest, wheat this year, it is conjectured, will be 95 per cent. of an average crop; rye 87; barley 97; potatoes 98, and oats 101. These are only estimates, however, made in June, which are consequently very unreliable
ject to much modification

firmation of the urgers of the new customs duties to the contrary that the measure would raise the price of this article. The farmers thus gained nothing by the act, unless it prevented a still further decline, and enable them to sell more readily the yield of their lands. The hard sorts of wheat, however, which the millers must obtain from abroad, which used to cost about the same price as the wheat of the Bavarian Palatinate, now cost 1 mark (23 cents) to 1.50 marks (35 cents) per 100 kilograms (220 pounds) more. The barley of the Palatinate, which before the new tariff act was exported in large quantities to England and Holland, was pressed to the wall there in the past year, it is said, by barley from France and Austria-Hungary. Whether the new duties availed the farmers anything is a disputed point; those friendly to the measure claiming that they do; those opposed to them, of course that they do not help them in any way. However, there has been a great falling off, according to the bureau of statistics at Berlin, in the amount of grain imported during the first three months of 1886, as compared to the corresponding period of other years. The farmers are not satisfied with the increased duties given them last year on cereals, but clamor for still higher ones. These the Government seems not disposed to grant them very soon, if at all.

On wool, too, the farmers want a duty imposed, as sheep husbandry is represented to be in a woful state in the Empire. This they will hardly get. Although it might prove to be very beneficial to the agriculturists, it would be a blow to the whole woolen trade, which could not have an export bounty granted it corresponding to the quantity of wool used in manufacturing. A duty on wool, it is thought, would so seriously cripple the entire woolen industry that it could only be regarded as a blow at the well-being of the German nation. Germany exported in 1864 woolen yarn and goods amounting in value to about $65,000,000, and this industry would be put in jeopardy by a duty on wool, for the native wool is said to form but one-fifth part of the whole amount employed in manufacturing.

VINTAGE.

The vintage last year was poor, and did not repay the vine-dressers for their labor and care. In many cases the costs of cultivation were hardly covered. The wine of 1885 is a racier wine than that of 1884, but sourer. Both in quantity and quality was the vintage a failure. The specific weight of the must from ordinary vineyards in Rhenish Prussia did not go beyond 75 to 80 degrees Oechsle, while the acidity reached 12 to 14 per cent. But a small quantity of this wine, it is said, can be used by the trade unmanipulated, while the great part of it must be improved in flavor by artificial methods. This year, so far as quality is concerned, the outlook is very unfavorable. In the matter of quantity the vintage will be one of the poorest for years. With regard to quality it is yet too early to make trustworthy predictions.

» » are discovered from time to time in the » the vineyards of

IRON AND STEEL INDUSTRY.

The iron and steel industry has been in a critical condition. Miners of iron and workers in the same have had a very unfavorable year. The iron industry has been in a state of steady decline. Prices have been very low. Limitation of production has been necessary, and discharges of workmen unavoidable.

The Chamber of Commerce at Coblenz in its last annual report, published about six weeks ago, commenting on the state of the iron industry, says, in substance:

There has been an increased production of iron, but a further decline in prices also, which has forbidden all gain in most undertakings of the period. Especially unfavorably affected were quality raw iron and weld-iron, while the steel works were not only better employed, but obtained higher prices. An increased protection to lighten the inland market was not possible, while in other iron and steel producing countries overproduction and the strife for the market, with declining prices, were greater than in Germany, or an absolute barrier to importation was raised by high tariff duties, as was the case with Russia. Late in the autumn of 1885 an improvement occurred in the American market which had a good effect upon the European market, but only temporarily. The evil situation has continued, and even now no general improvement is reckoned upon. In very many large works, both in Germany and abroad, the effort is being made to offset the small profits realized by increased production and by using every appliance to the very best advantage, but this only makes the disproportion between production and consumption all the greater. To put an end to the continual weakening of prices, if possible, producers in different branches of the business have united in combinations, and in some instances met with success, but the opposing difficulties have been great and overcome mostly only under pressure of the greatest necessity. The effort also has been made to effect savings and obtain advantages by doing away with middlemen. While it cannot be denied that under certain conditions the middleman can be done away with in certain cases, it should not be set up as a general rule, and it should not be forgotten that it is the middleman who first, at great risk, seeks new fields of sale and establishes new trade relations, receives the full force of the strife between producer and consumer, often holds large stock, lightens the market, and thus gives to trade greater stability.

The following short table shows the prices at the beginning and at the end of 1885 of the chief materials used in the iron industry, and of the leading products thereof, the prices given being in tons at the station from which sent off:

Articles.	Beginning of 1885.	Close of 1885.
Coal	$1 28 to $1 33	$1 33 to $1 38
Furnace coke	1 71 1 80	1 80
Burnt spar	2 80	2 61
Nassovian red-iron ore	2 14	2 02
Quality puddle-iron	10 94	9 52 9 99
Foundry iron, No. 1	14 75	12 61
Spiegel iron	11 42	10 71
Luxemburg raw iron	8 09	7 14 7 37
Bar-iron	25 46	23 80
No. 1 boiler-plate	36 89	33 32
Fine sheet-metal	35 70	32 13
Wire	27 37	25 70

For iron mining the year has been more unfavorable than the preceding one. The ability to obtain Spanish and Algerian ore at low freight rates on the one side, and the increased use, through the Thomas method, of phosphoric ore from the Upper Moselle, have brought about less demand for the good but baser ore of the Lahr and the Middle Rhine and caused the mines to limit production or shut up altogether, although the owners of the mines endeavored [illegible]

short time ago an English firm underbid all the German firms for a delivery of iron rails at Altona 25 per cent. In Italy and Roumania the Germans are also said to be underbidden by the English and Belgians. The German journal *Stahl und Eisen* (Steel and Iron), in commenting on this rivalry, says that if English firms succeed in competing with German works in their own country they will be placed in a worse position than they are now in, and refers to the competitive struggle going on between the English and German works as one of life and death.

Articles made of cast iron were in active demand last year, and their manufacture was more profitable than that of most other articles in the iron trade. Prices were better, but not enough so to make business thoroughly profitable. They could only prevent further losses. Bar-iron reached the lowest price ever known, and stood at 100 marks ($23.80), and even lower.

LEAD AND ZINC.

With lead and zinc the result was better than with iron. Lead had been very flat for a long time, and in 1885 an improvement manifested itself. There was an increased production of zinc ore in Germany in 1885, but of lead less. For both there was a good demand. Prices followed the movement of the metal market and rose somewhat in the second quarter of the year, but not enough to cause the mines which had been lying idle to resume work. Says the Chamber of Commerce at Coblenz, in substance:

The demand for soft lead was very active throughout 1885. Large stocks of finished lead were seldom on hand at the furnaces, and at times the production was hardly equal to the demand. Nevertheless, in the early part of the year prices fell and went down to as far as 20 marks [$4.76] per 100 kilograms [220 pounds] at the works. About the middle of the year prices rose, being in July 23½ marks [$5.59], then went down 1 to 1½ marks in the autumn of the year, but again picked up and closed at the end of the year to 24 and 24½ marks the 100 kilograms [$5.71 to $5.83]. The market still continues active. There was an increased production of hard lead, but apparently no increase in consumption.

There was less zinc produced. The market was gratifying, but prices went gradually down during the first six months of the year, and stood in June below 26 marks [$6.18] per 100 kilograms at the furnaces. Then a combination was formed, after much labor, into which nearly all the furnaces of Europe entered, and the agreement adopted that after 1885 the quantity of zinc produced should be limited to that of 1884. This had an immediate effect upon the market, so that by the end of the year the price had risen to 29 marks [$6.90] per 100 kilograms. As the combination has been formed for a long period of time and the consumption of zinc seems to gradually increase, a further rise in price is to be expected.

Raw zinc is now quoted at 28½ to 30 marks ($6.78 to $7.14).

COPPER.

Copper was lower in price. The increased production in foreign countries is said to forbid a hope of improvement in prices.

SILVER.

There was a material increase in the production of silver in Germany in 1885. The cause is due to increased importation of fine foreign ore, while less has been mined in Germany. Silver advanced in price a little, say 2 marks (50 cents) a kilogram, then went down gradually until the end of December, showing a fall of about 10 marks ($2.38) per kilogram below the price at the beginning of the year, due to the fact that the legislative bodies of the United States, France, and Germany, as well as other countries, showed a disinclination to meddle with the silver question.

TEXTILES.

In textiles the situation is not gratifying. The Saxon cotton spinners on the 19th ultimo, at a gathering held at Chemnitz, on the motion of a large North German mill, agreed to limit production in consequence of the low price of cotton yarn, provided the other German mills are ready to do the same thing. The flax harvests have been inferior for the past two years, but notwithstanding its poor quality raw flax is high in price, so much so it is said that the spinners are making nothing, and are obliged to sell their products with loss. One prominent flax-spinning establishment, which in 1885 declared a dividend of 12 per cent., will declare no dividend this year, it is said, or at most a small one. For weavers in linen the situation is equally unfavorable. They are kept very busy, but complain loudly of unprofitable sales. The market has also been unfavorable for silk and half-silk goods, velvets, woolen and half-woolen goods.

LEATHER.

The business in sole-leather is said to have been pretty much what it was during the preceding year. The pressure, which is felt more or less in all branches of industry, was experienced by dealers in sole-leather, especially in the heavy kinds. This flat state of the trade in heavy sole-leather had of course an influence upon raw goods, which at the sea-ports, notably Antwerp, had to be sold at considerably reduced prices. The native hides also suffered in the same way. The increased manufacture of shoes by the factories calls for light and medium leathers to the exclusion of the heavy grades used by hand shoemakers. In upper-leathers the demand is said to have been regular and prices in general strong.

INCREASED DUTY ON LEATHER.

The men in the leather trade desire the duty on leather, which is now 18 marks ($4.25) per 100 kilograms (220 pounds) on leather in general and 36 marks per 100 kilograms on sole-leather, made 36 marks for all leathers. Commenting on this proposition to increase the duty on leather the Chamber of Commerce at Worms says, referring to the leather manufactories in its district:

> Our large leather factories do not require any protection in duty, as their products, lacquered and kid leathers, are mostly exported to lands which have a high duty and a good developed industry, as France, for instance, that levies a duty of 20 f[illegible] but would be seriously affected should an i[illegible]

vach-leather croupons for use as machine belting and those for use in manufacturing shoes. With a very little fat vach-leather can be made to have the appearance of oiled leather without injuring it as sole-leather. At the same time a great injustice which is being done to the German makers of leather belting for machinery would be remedied. This industry now suffers from foreign competition just as before 1879 the sole-leather did.

CHEMICALS.

The chemical works still complain of falling prices. Customs duties in France, the United States, and Russia have materially reduced importations from Germany. Quite a number of the German chemical works have erected branch establishments on this account in foreign lands, by which the loss in exportations is made up to a certain extent.

ANILINE COLORS.

In aniline colors business is said to be dragging, with low prices. Almost all raw materials have become cheaper; especially was this the case with benzol, which at the close of 1885 stood cheaper, at a price scarcely ever reached before since the creation of the aniline industry.

PETROLEUM.

Petroleum was low in price. In the fall of 1885 the chancellor of the Empire suggested to the Bundesrath that on petroleum-barrels in future a duty of 10 marks ($2.38) be levied as coopers' articles, as these barrels were coming into competition with those of German coopers, which was accordingly done. Respecting the imposition of this duty the Chamber of Commerce at Weisbaden thus expresses itself:

> The Bundesrath, contrary to the laws of the Zollverein, has ordered the levy of a duty on petroleum-barrels as fine coopers' articles in addition to the existing gross duty, which duty is to be refunded on the re-exportation of the barrels. This is done on the ground that the cooper business suffers from the enormous importation of these barrels. But it must be urged that the American petroleum-barrels do not come into competition with the barrels of our coopers. They are so cheap in price and their durability is so great that they can be used for many purposes to which barrels cannot generally be applied, and in default of them recourse must be had to other articles for use in packing. They can hardly be done without, and our native coopers are unable to offer any substitute for them, as our barrels are far too dear and less durable.

LARD.

Lard was lower in price. Much lard is imported from America, but the larger part of it is supposed to be used in the manufacture of artificial butter.

IMPORTS AND EXPORTS.

The imports of the Empire amounted in value in 1885 to 2,944,431,000 marks ($700,774,578), exclusive of gold and silver in bullion and coin, or 316,368,000 marks ($75,305,000) less than in 1874, and the exports to 2,860,257,000 marks ($680,741,166), or 344,682,000 marks less ($82,034,000) than in 1884; but the gross weight of the articles imported amounted to 17,867,291,000 kilograms, against 17,787,720,000 in 1884, [illegible] 18,813,869,000 kilograms, against 19,151,636,000 in [illegible] amounting in value to 410,- [illegible] 1885

The exportations during the first six months of the present year show a general increase over those made during the first six months of 1885, as will appear from the following table:

Articles.	First half of 1886.	First half of 1885.	Articles.	First half of 1886.	First half of 1885.
	*Double centners.**	*Double centners.*		*Double centners.*	*Double centners.*
Cotton goods	77,403	71,650	Potash	42,766	42,791
Cotton stocking goods	42,078	37,064	Chlorkalium	266,691	322,003
Rope goods	18,342	17,655	Muriatic acid	38,373	43,906
Linen goods	13,774	14,436	Sulphuric acid	89,820	80,924
Silk goods	1,202	1,191	Ultramarine	26,782	26,427
Half-silk goods	20,606	15,652	Aniline and aniline colors	35,714	29,258
Woolen goods of all kinds	100,111	90,734	Mineral water	113,777	143,284
Woolen stocking goods	10,351	8,703	Glass of all kinds	369,042	349,581
Clothing and wash goods	27,218	24,890	Porcelain and fine earthenware	45,523	46,998
Pit coal	40,971,992	42,400,889	Bricks	2,848,472	2,626,606
Coke	2,906,345	3,207,635	Leather of all kinds	20,433	20,231
Iron ore	9,014,175	8,694,607	Fine leather goods	20,266	19,357
Raw iron	1,197,259	951,226	Paper and pasteboard	260,647	250,299
Malleable iron	750,303	704,079	Wood and straw stuff	181,205	147,527
Railroad rails	758,027	645,553	Potatoes	832,536	461,042
Iron plates, tin	203,887	217,539	Sugar	2,293,420	3,115,853
Iron wire	1,213,391	819,644	Molasses	173,308	430,971
Wire tacks	183,282	179.339	Hops	47,897	31,938
Rough cast-iron goods	91,115	108,528	Beer	612,894	773,604
Other rough iron goods	298,642	291,432	Brandy of all kinds	375,222	361,484
Fine iron goods	40,216	32,959	Wine and must in casks	132,470	52,114
Copper in bars and plate	15,527	15,807	Wine in bottles	22,655	22,900
Copper goods of all kinds	20,064	19,339	Flour	551,819	522,749
Goods of nickel and aluminum	12,148	9,800	Meat	43,640	49,337
Zinc	334,700	355,534	Butter	73,785	80,284
Lead	205,037	200,468	Starches and starch flour	193,617	133,286
Calcined soda	57,835	58,605			
Raw and crystallized soda	30,312	23,467			

*220½ pounds English.

A few articles of minor importance have been omitted from the table.

There was an increase in the value of the exportations from this consular district to the United States during the fiscal year ending June 30, 1886, over that ending June 30, 1885, of over $200,000, as follows:

Articles.	1885–'86.	1884–'85.
Wine and brandy	$641,517 34	$566,224 09
Agate ware and jewelry	279,025 97	172,326 46
Chemicals	154,211 74	119,690 81
Leather	97,863 29	119,990 75
Cement	96,144 14	76,666 56
Hops	83,026 47	84,506 82
Aniline colors	68,426 19	51,215 91
Preserved fruits	13,477 10	30,067 89
Cattle hair	7,855 03	2,349 14
Miscellaneous	27,779 34	24,716 86
Total	1,469,326 61	1,247,755 29

PRICE OF FOOD.

The average prices in Hesse during the year 1885 of grain, hay, potatoes, peas, and beans per 100 kilograms (220 pounds), in comparison with the average prices of 1884, were as follows:

The average prices of meat, flour, &c., in this Duchy during the same years per pound, 1 German pound being half a kilogram, or 1.1 pounds English, were as follows:

Articles.	1885.	1884.	Articles.	1885.	1884.
	Cents.	*Cents.*		*Cents.*	*Cents.*
Beef	31 3/5	32 2/5	Rye flour	6 3/5	6 2/5
Veal	25 9/10	26 3/5	Rye bread	5 2/5	5 3/5
Mutton	26 1/5	27 3/5	Butter	44 9/10	47 4/5
Wheat flour	9 1/5	9 1/2	Pork	27 1/10	27 3/10

SANITARY STATISTICS.

According to the census taken December 1, 1885, the population was then 956,200 souls. During the year 1885 the number of deaths in the Dutchy, according to the official report, was 21,570, exclusive of still-births, or 22.56 per 1,000 inhabitants, against an average of 21.12 in 1884, and an average of 22.26 from 1880 to 1884. Of the deceased, 5,537 were children less than one year old, and 3,900 children from one to fifteen years old. From infectious diseases of all kinds there were altogether 2,084 deaths; 624 from measles, 619 from diphtheria and croup, 270 from whooping cough, 230 from scarlet fever, 148 from typhus and nervous fevers, 97 from erysipelas, 86 from child-bed fever, and 10 from diarrhœa. From consumption, 2,789 persons died, and to acute inflammation of the breathing organs 2,342 yielded. Apoplexy claimed 626 victims, of suicides there were 237, and of deaths through accident 275. Catarrh of the stomach and diarrhea accompanied by vomiting occasioned 1,063 deaths.

METEOROLOGY.

The lowest point reached at Mayence by the thermometer during the year 1885 was on December 12, when it stood at −13.6° Réaumur, the highest on June 29, when it was at +25.4° R. The average temperature during the months of December, 1884, January and February, 1885, was +1.99° R.; during March, April and May, 1885, +7.52° R.; during June, July, and August +14.84° R.; during September, October, and November +7.47° R. The number of icy days, the greatest temperature being 0° R., were 13; the number of frosty days, with minimum temperature under 0° R., were 76; the number of summer days, with a maximum temperature of 20° R. or more, were 48; the number of rainy days were 151; the number of snowy days, 16; the number of rainy and snowy, 5; the number of foggy days, 55; and the number of days on which thunder-storms occurred were 15.

EMIGRATION.

2,503 persons, against 3,175

ITALY.

ROME.

Report of Consul-General Alden.

POPULATION.

In 1884 the population of Italy was 29,361,032, and on December 31, 1885, it was 29,699,785, showing an increase of 338,753.

There was in 1885 a very marked decrease of the death rate. In 1884 the death rate per 1,000 was 27.42, while in 1885 it was 26.51. This improvement took place both in spite of and because of the presence of cholera in Italy. As a preventive measure every village and town in Italy was required soon after the first appearance of the disease in the Kingdom to clean its streets, and in addition a vast deal of intelligent and faithful work was done by the authorities in the matter of cleaning and disinfecting buildings. The result has been the decrease of the death rate in spite of the presence of a fatal epidemic. The following statistics as to the population of Italy in 1885 will be of interest:

Population of Italy for the year ending December 31, 1885.

Total population	29,699,785
Marriages	233,931
Births*	1,125,970
Deaths*	787,217
Marriages per 1,000	7.88
Births per 1,000	37.91
Deaths per 1,000	26.51

Recognizing the fact that the cholera, as well as certain other diseases, is largely propagated by means of contaminated water, much has been done in Italy during the past year in regard to the improvement of the water supply, and the ministry of the interior has required from each commune a full report as to the precise condition of its water supply. In short, so much has been done for the improvement of the sanitary condition of Italy, in consequence of the alarm caused by the cholera, that we may reasonably expect a further reduction of the death rate during 1886 and 1887.

AGRICULTURE.

Italian crops in 1884 *and* 1885.

Articles.	1884.		1885.	
	Total quantity.	Per cent.	Total quantity.	Per cent.
Wheat.....bushels..	127,933,066	89.	118,265,419	81.87
Indian corn.....do....	94,201,166	106.47	79,906,728	90.32
Barley.....do....	9,236,656	82.28	8,687,691	77.39
Rye.....do....	4,499,[illegible]			
Rice.....				

As to the following crops, the latest attainable statistics are those of the year 1883:

Articles.	Quantity.	Articles.	Quantity.
Oats ..... bushels..	15,593,497	Potatoes ..... bushels..	16,286,620
Peas, beans, and lentils ..... do....	5,035,929	Flax ..... pounds..	39,522,802
Fave, lupins, and chick peas ... do....	7,131,126	Hemp ..... do....	161,856,646

In amount, the crops for 1885, so far as the statistics are attainable, do not materially differ from those of 1884 with the exception of the wine crop, in which there has been an increase of 152,416,378 gallons. There has been a very slight increase in the oil, the orange, lemon and citron, and the chestnut crop, but the remaining crops show a small decrease.

Little has been said by the Italian authorities during the last year of the phylloxera, and it has to a large extent disappeared from Italy. During the last year the peronospora has attacked a large proportion of the Italian vineyards, but its ravages have been checked by a liberal use of lime.

Much damage was done to the crops in Northern and Central Italy in the early autumn of 1885 by floods and hail. The rains began nearly a month earlier than usual and lasted until January.

FISHERIES.

During 1885 there were employed in the various fisheries, including coral and sponge fisheries, 16,851 vessels and small boats, of an aggregate tonnage of 49,182 tons. By far the greater part of the tonnage consisted of small boats engaged in fishing in the harbors and bays of Italy. Of the whole number 15,904 vessels and boats of 41,411 tons were engaged in fishing in Italian waters, and 947 vessels of 6,634 tons were engaged in fishing in foreign waters. In 1884 there were employed in the Italian fisheries 48,359 men and boys. In 1885 the number had increased to 49,728, an increase of 1,369.

Italian fisheries in 1885.

Description.	Boats.	Tonnage.
	No.	*Tons.*
Fisheries	16,573	47,278
Coral fisheries	216	790
Sponge fisheries	62	1,114
Total	16,851	49,182

Total men and boys employed, 49,728.

MINES.

Italian mines and their products in 1884.

Character of mines.	Number of mines.	Miners employed.	Ore extracted.	Value.
			Tons.	
Iron	41	2,129	225,368	$504,641
Copper	12	1,393	27,482	424,974
Zinc	18	1,216	20,974	227,076
Lead	22	3,066	26,599	907,659
Lead and zinc	17	4,665	*19,517	467,231
			†75,000	32,429
Gold	17	459	15,037	86,233
Silver	4	1,155	1,626	360,394
Manganese	2	37	885	7,570
Antimony	9	250	1,714	57,394
Quicksilver	2	236	‡588,523	195,835
Iron pyrites	4	190	7,948	22,140
Rock salt	24	595	17,600	59,931
Coal, lignite, &c	25	2,273	223,322	329,168
Sulphur	393	33,030	411,037	7,048,751
Boracic acid	13	586	2,517	325,600
Petroleum	6	110	397	26,142
Bitumen	13	416	17,350	87,853
Total	.....	51,806	.....	11,170,012

* Lead. † Zinc. ‡ Pounds.

FORESTS.

The Italian Government is making efforts to prevent the further destruction of forests, and to encourage the planting of trees. There has latterly been an inclination in Italy to lose faith in the efficacy of the Eucalyptus tree as a protection against malaria, and it is denied by many persons that it has any prophylactic influence whatever. The weight of evidence seems to show, however, that in many fever-stricken regions where the Eucalyptus has been largely planted the public health has improved.

Extent of forests in Italy.

Provinces.	Extent.	Provinces.	Extent.
	Acres.		*Acres.*
Piedmont	1,243,317	South Adriatic provinces	744,727
Lombardy	909,496	South Mediterranean provinces	1,353,374
Venetia	650,772	Latium	615,845
Liguria	433,584	Sicily	252,412
Emilia	622,359	Sardinia	1,477,710
Marches and Umbria	754,738		
Tuscany (province of Lucca only)	77,144	Total	9,135,478

EDUCATION.

Although the most recent statistics show that 67.26 per cent. of the population of Italy is unable to read or write, it will not be long before this reproach is entirely taken away. Compulsory education for the young, and the rule which compels every man in the army to learn to read and write, will in the course of comparatively few years provide every Italian with an elementary educati

was 84,173, and it is probable that the yearly increase since 1883 has been at least as large.

In the various schools for secondary instruction of which I have obtained the statistics for the scholastic year 1883–'84, there were in that year 58,984 pupils, an increase since 1882 '83 of 1,441.

In the technical schools there were 33,399 pupils, being a decrease since 1882–'83 of 420. In the school of the mercantile marine there were 825 pupils, being ten less than in the previous year.

There are in Italy 21 universities, of which 4 are free; and 21 superior institutes. The number of students and of persons attending lectures in these institutes, was, in 1884, 15,710, or 840 more than in 1883.

Finally, there are the schools for special instruction. These include the military, naval, agricultural, and mining schools, and the Government conservatories of music and fine-art schools. The following statement shows the number of these schools and the number of pupils attending them:

Special instruction in Italy.

Schools.	1883.		1884.	
	Schools.	Pupils.	Schools.	Pupils.
Government schools of fine arts	14	3,140	14	3,083
Government musical conservatories (including school of recitations in Florence)	----	973	----	912
Military schools	7	2,503	9	2,865
Naval academy	----	167	----	184
Engineers' (naval) academy	----	155	----	149
Agricultural schools and colonies	49	1,151	----	1,151
Mining schools	----	93	----	118
Industrial and commercial schools	103	16,271	----	(*)
Total	----	24,453	----	8,462

* No return obtainable for 1884.

There were thus, according to the latest statistics, about 2,500,000 children and young persons receiving instruction in public and private schools in Italy. This, of course, does not include the very large number of children of the more prosperous classes, who receive their instruction at home.

CRIME.

There has been during the year 1885 a decrease in crime which is very creditable. In 1884 there were 119,980 crimes committed or denounced to the authorities, and 24,793 convictions for crimes of all sorts. In 1885 there were 113,194 crimes committed or denounced, being a decrease of 6,786, and there were 24,101 convictions, being a decrease of 692.

To a very large extent the homicides committed or attempted in Italy are the result of the practice of carrying concealed weapons. The number of cold-blooded, premeditated murders is comparatively small, and homicides, as a rule, are committed in the heat of sudden passion. The authorities are making earnest efforts to put an end to this unpermitted to carry a pistol with- are allowed

The following statement shows the number and character of crimes committed and denounced, and of corrections for crime in Italy in 1885:

Crime in Italy in 1885.

Character of crimes.	Crimes committed.		Crimes of which criminals were corrected.			
			By correctional tribunals.		By courts of assizes.	
	1884.	1885.	1884.	1885.	1884.	1885.
Homicides:						
Committed	1,373	1,270	224	116	1,240	1,114
Attempted	1,470	1,475	116	76	271	267
Infanticides:						
Committed	272	.....	.....	.....	63	67
Attempted	25	.....	.....	.....	7	1
Assault and battery	49,086	43,126	11,196	9,275	312	394
Robbery and extortions:						
With homicide	113	136	25	12	60	77
Without homicide	1,972	1,956	88	168	466	344
Theft:						
Qualified	34,284	34,118	9,604	6,166	1,069	1,079
Simple	31,385	31,113		4,866	51	79
Total	119,980	113,194	21,353	20,679	3,539	3,422

EMIGRATION.

The increase in emigration from Italy steadily continues. In 1884 the total emigration from Italy was 147,017. In 1885 it was 157,193, being an increase of 10,176. Of this total, 59,395 emigrants went to South America and 13,096 to North America. Of the latter, 12,485 went to the United States and 611 to Canada. In 1884 the emigrants to the United States numbered 10,583 and those to Canada 265. The increase of emigrants to the United States in 1885 has therefore been 2,249 and the increase to Canada 346.

The emigration to Africa in 1885 was 6,217 as compared with 3,754 in 1884, being an increase of 2,463. This comparatively large increase has been chiefly in the direction of Algeria. On the other hand, emigration from Italy to European countries has decreased from 87,558 in 1884 to 78,232 in 1885, a decrease of 9,326.

The following statement shows in detail the direction of emigration from Italy in 1884 and 1885:

Emigration from Italy in 1884 *and* 1885.

Destination of emigrants.	1884.	1885.	Destination of emigrants.	1884.	1885.
Canada	265	611	Algiers	1,636	3,423
United States	10,582	12,485	Egypt	850	1,194
Total emigration to North America	10,847	13,096	Tunis	637	818
Argentine Republic	31,927	37,710	Other African countries	631	782
Uruguay	947	1,497	Total emigration to Africa	3,754	6,217
Paraguay	1,142	847	Asia	65	96
Brazil	6,116	12,311	Oceanica	[illegible]	[illegible]
Other American countries	1,488	[illegible]			

RAILWAYS.

The statistics of the Italian railways for 1885 have not yet been published.

The total length of Italian railways on December 31, 1883, was 6,001 miles. On December 31, 1884, the total length was 6,292 miles, being an increase of 291 miles. The working expenses in 1883 were $28,626,930 as compared with $30,618,526 in 1884, being an increase of $1,991,599. The receipts in 1884 were $41,032,560 as compared with $39,784,247 in 1883, being an increase of $1,248,313. The surplus of receipts over expenses was $11,157,317 in 1883 and $10,414,034 in 1884.

The total cost of all the railway lines (including rolling stock) on December 31, 1884, was $554,887,406. This gives an average cost (excluding cost of rolling stock) per mile of $79,617.

There was in the possession of the Italian railways the following rolling stock in 1883 and in 1884:

Rolling stock.	1884.	1883.
Locomotives	1,913	1,807
Passenger cars	5,616	5,400
Other cars	31,740	30,450

The number of miles run by passenger cars in Italy in 1884 was 15,382,000, and by freight and construction cars 13,642,000, making a total mileage of 29,024,000. This was an increase over the mileage of 1883 of 2,489,447 miles. In 1884 the Italian railways carried 36,358,791 passengers.

Italian railways are nearly all single-track roads, but they are managed with very great care and collisions are almost unknown. The cost of the roads has been very great owing, to the conformation of the country. Railways can be carried from the west to the east coast only by tunneling the Apennines and by steep grades, while the greater part of the coast lines from Ventimiglia to Spezia and from Naples to Cape Spartivento is a succession of tunnels. The interior of Sicily and Sardinia being mountainous has also made the construction of railways in those islands very costly.

Within the last two or three years a great number of steam tramways have been built in Italy. These roads usually follow the line of an existing ordinary road, and the trains consist of three or four cars of about the size and very nearly the pattern of American street horse-railway cars. They are cheaply built and operated, and as the Government does not class them as railways, they pay no taxes on freight and passengers.

Length of railways in Italy in 1884.

Companies.	Length.	Companies.	Length.
	Miles.		Miles.

Receipts and expenses of Italian railways in 1884.

Receipts.	Amount.	Expenses.	Amount.
Passengers	$15,750,429	Working expenses and repairs	$8,558,102
Freight	24,619,408	Administration	2,658,406
Miscellaneous	662,723	Traffic	9,888,805
		Rolling stock	9,513,213
Total	41,032,560	Total	30,618,526

Length of steam tramways in Italy in 1884.

Provinces.	Length.	Provinces.	Length.
	Miles.		*Miles.*
Piedmont	403¾	Rome	33
Lombardy	438	Campania	20
Venetia	66	Puglie	40¾
Emilia	91¼		
Tuscany	57½	Total	1,150¼

The extent of these steam tramways curiously corresponds with the enterprise and industry of the respective Italian provinces.

TELEGRAPHS.

Extent of telegraph lines and telegraphic business in Italy in 1884, *the statistics for* 1885 *not being as yet obtainable.*

Length of wires.....miles..	64,425	Private dispatches sent in the Kingdom	5,652,278
Length of lines.....do....	18,242	Private dispatches sent to other countries	568,271
Length of submarine cable.....do....	116¼	Government dispatches sent	456,303
Number of officers	3,227	Dispatches received from abroad	664,501
Employés	5,958	Dispatches in transit	174,937
Machines	2,027		
Semaphoric stations	30		

The receipts of the Italian telegraphs during 1884 were $2,392,016, of which $1,939,574 was received for private telegrams.

The total expenses were $2,020,911, showing a profit of $371,105.

The charge for telegrams in Italy is 1 lira (equivalent to 19.3 cents) for fifteen words, and 5 centesimi (equivalent to 1 cent) per word for every additional word. The machines in use are the Morse and the Hughes machines.

POSTS.

In 1884 the number of letters carried by the Italian post-office was 143,250,000. On June 30, 1885, the end of the fiscal year, the number of letters that had been carried during the year was 159,678,226, being an increase of 16,428,226. The number of postal cards carried during the same fiscal year was 35,521,098, and the number of newspapers was 173,250,108. There was a large increase in the number of newspapers as compared with the number carried in 1884, which was 108,[illegible]
This increase, which amounts

Receipts of the Italian post-office in 1885.

Sources.	Amount.	Sources.	Amount.
Postage stamps sold	$5,338,164	Miscellaneous receipts	$625,578
Postal cards sold	720,025		
Stamps for marking short-paid letters	671,755	Total	7,355,522

Italian postal savings banks.

Business done.	In 1885.	Since the opening of postal savings banks in 1876.
Bank-books issued	285,372	1,457,513
Bank-books canceled	93,766	250,579
Deposits	1,743,588	7,809,585
Deposits withdrawn	883,311	3,636,056
Amount of deposits	$27,509,497	$124,959,149
Amount of deposits withdrawn	23,079,472	94,736,390

Italian postal operations from July 1, 1884, *to June* 30, 1885.

Number of post-offices in the Kingdom on June 30, 1885	3,980
Number of Italian post-offices outside of Italy	6
Number of letters and manuscripts posted	159,678,226
Number of postal cards posted	35,521,098
Number of newspapers, &c., posted	173,250,108
Number of postal packages posted	4,374,284
Postal orders given out:	
Number	4,542,132
Value	$106,136,792
Postal orders paid:	
Number	4,963,591
Value	$113,502,658
Total receipts of post-office	$7,355,522
Total expenses of post-office	6,408,452
Balance	947,070

In 1884 the total receipts of the Italian post-office were $5,917,551 and the total expenses $5,351,786, showing a profit of $565,765. In 1885 the receipts were $7,355,522 and the expenses $6,408,452, showing an increase balance on the side of profit of $947,070.

A comparison of the sums deposited in the postal savings banks since their institution in 1876, with the deposits withdrawn during the same period, shows that ordinarily the postal banks have a substantial sum of money in their charge. The excess of deposits over withdrawals in 1885 amounted to no less than $4,430,025, and the total amount of money deposited since 1876 was greater than the amount of the deposits withdrawn by $30,218,579.

No change has been made in the rates of postage by the Italian post-office within the past year.

There are drawn every year for service in the permanent army about 106,000 men, who serve from three to five years, according to the branch of the service in which they are enlisted. They then serve from nine to seven years in the militia, after which they pass into the territorial army. A certain proportion of the permanent army is always, in time of peace, absent from the colors on indefinite furlough, excepting a few weeks in each year when they are recalled for drill. In the territorial army are also included all able-bodied men between the ages of twenty and forty who are not exempted from military service for special reasons, or who do not belong either to the permanent army or the militia.

It should be said that the territorial army is every year improving in numbers and discipline, as it continues to receive old soldiers from the militia. The men of the territorial army go into barracks every year for two weeks, and I am glad to say that the four Roman battalions which have just performed their annual two weeks' service present the appearance of well-disciplined regular troops rather than that of what we are accustomed to regard as militiamen.

The Italian permanent army and the militia (which corresponds to the German Landwehr) are in a high state of efficiency. The officers are thoroughly educated men, and in all that pertains to military science they are as well instructed as the Prussian officers. The men are well disciplined, neat, and cheerful fellows, and as soldierly in their appearance as any soldiers in Europe. Italy has spent a great deal of money in her army, but the money has given as its return a splendid army, that can be fully trusted to defend the country against any invaders.

At present the infantry is armed with the Vetterli breech-loader, but this weapon is to be immediately converted into a magazine-rifle holding eight cartridges. The navy is already furnished with this converted weapon, which has given entire satisfaction.

THE NAVY.

There has been launched during the year 1885 only one man-of-war of much importance. This was the Morosini, which was built at Venice. She is a vessel of 11,000 tons displacement, and is built of steel. She is to carry armor of 45 centimeters in thickness, will be armed with four guns of 43 centimeters caliber and two of 15 centimeters, all breech-loaders, and her engines are to be of 10,000 horse-power. Two other vessels of precisely the size and character of the Morosini are in course of construction.

BOOKS.

There were published in Italy in 1885 6,908 books and pamphlets other than periodicals. The number published in 1884 was 6,214, and the increase was therefore 694. Of these 6,908 books, 6,671 were in the Italian language, 31 were in Italian dialects, 108 were in Latin, 72 in French, and 26 in other languages.

The greatest number of books of any one department published in 1885 was 719 theological works. Next come belles-lettres, to which de-
partment belonged 632 books. Then
on history and

COINAGE.

Money coined during each year since the establishment of the Kingdom of Italy.

Year.	Gold.	Silver.	Bronze.	Total.
1862	$5,521,490	$404,970	$5,440,755	$11,637,215
1863	14,767,221	6,191,994	1,544,000	22,503,215
1864	2,349,305	6,040,569	----------	8,839,874
1865	13,260,104	8,867,952	----------	----------
1866	757,721	6,919,596	3,860,000	11,537,317
1867	1,106,485	3,190,317	7,969	4,304,771
1868	1,313,932	241,723	3,852,029	5,407,684
1869	715,470	3,855,412	----------	4,570,882
1870	211,412	5,761,451	----------	5,972,862
1871	90,818	6,948,037	----------	7,038,855
1872	12,738	6,873,100	----------	6,885,838
1873	3,937,999	8,158,869	----------	12,006,868
1874	1,142,448	11,580,000	----------	12,722,448
1875	433,176	9,650,000	----------	10,083,176
1876	415,850	6,166,680	----------	6,582,530
1877	954,956	4,255,319	----------	5,210,275
1878	1,224,639	1,737,000	----------	2,961,939
1879	565,358	3,860,000	----------	4,425,358
1880	409,997	----------	----------	409,997
1881	3,254,088	1,208,346	----------	4,462,434
1882	26,927,946	1,103,652	----------	28,031,599
1883	785,027	1,352,046	6,864	2,143,137
1884	62,165	2,121,951	2,785	2,186,901
1885	169,165	134,626	9,650	313,838

The great increase of coinage in 1882 was due to the necessity of preparing for the resumption of specie payments.

Entries and clearances at all Italian ports in 1884 *and* 1885.

Description.	Entered.				Cleared.			
	1884.		1885.		1884.		1885.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
International commerce.								
Sailing vessels:								
Italian	8,633	660,803	8,910	711,976	7,879	669,780	8,374	698,234
Foreign	2,461	354,855	2,612	437,399	2,586	376,652	2,665	418,375
Steamers:								
Italian	869	754,448	937	741,447	806	666,226	888	695,427
Foreign	3,866	3,446,146	4,453	4,012,160	3,886	3,516,302	4,384	3,856,937
Total:								
Italian	9,502	1,415,251	9,847	1,453,423	8,685	1,336,006	9,261	1,393,661
Foreign	6,327	3,801,001	7,065	4,449,559	6,472	3,892,954	7,049	4,275,312
Total	15,829	5,216,252	16,912	5,902,982	15,157	5,228,960	16,311	5,668,973
Coasting trade.								
Sailing vessels:								
Italian	68,912	2,145,961	74,057	2,328,857	69,279	2,075,476	74,006	2,353,922
Foreign	327	67,870	347	71,806	241	47,494	187	44,881
Steamers:								
Italian	15,741	6,160,493	17,773	6,834,338	15,794	6,189,522	17,797	6,820,756
Foreign	3,560	3,127,103	3,962	3,303,325	3,516	3,124,579	4,033	3,469,888
Total:								
Italian	84,653	8,306,453	91,830	9,163,195	85,073	8,264,998	91,803	9,174,678
Foreign	3,887	3,194,973	4,309	3,375,131	3,757	3,172,073	4,220	3,514,769
					88,830	11,437,071	96,023	12,689,447

Entries and clearances at all Italian ports of vessels exclusively engaged in the deep-sea fisheries in 1884 *and* 1885.

Year.	Entered and cleared.	Tonnage.
1884	3,525	29,393
1885	2,869	20,264
Decrease	656	9,129

Entries, clearances, and tonnage of vessels under foreign flags for the year ending December 31, 1885.

Flag.	Entered and cleared.	Tonnage.
English	9,717	9,043,346
French	4,621	3,418,901
German	1,010	495,462
Austrian	2,850	610,674
Greek	1,769	491,636
United States	51	29,170
All other foreign flags	2,625	1,225,582
Total	22,643	15,614,771

In 1884 the number of entries and clearances of vessels under foreign flags was 20,443, with a tonnage of 14,157,991, showing an increase in 1885 of 2,250 entries and 1,456,780 tons.

Number and tonnage of United States vessels entering at and clearing from the five principal Italian ports in 1885.

Ports.	Arrivals.		Departures.		Total.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
Catania	2	1,309	1	518	3	1,827
Genoa	5	4,340	5	4,340	10	8,680
Messina	1	525	.....	.....	1	525
Palermo	2	742	2	742	4	1,484
Savona	2	713	2	713	4	1,426
Total	12	7,629	10	6,313	22	13,942

In 1884 the total number of United States vessels so entering and clearing was 18, with a tonnage of 10,400. There has been an increase of 4 entries and clearances, with an increase of 3,542 tons.

According to Italian authority, the trade between Italy and America was carried on in 1885 under the following flags:

Flags under which the trade with the United States and Canada was carried on for the year ending December 31, 1885.

Flag.	Entered.			Cleared.		
	Number of vessels.	Tonnage of vessels.	Freight.	Number of vessels.	Tonnage of vessels.	Freight.
			Tons.			*Tons.*
With cargoes:						
Italian	168	120,878	126,295	118	73,742	75,549
American	6	3,489	4,604	14	7,177	9,267
Austrian	11	6,931	8,530	7	4,765	4,790
French	20	36,025	14,360	39	52,116	15,937
German	5	2,812	3,731	4	2,637	2,502
English	106	48,432	51,586	173	204,693	191,274
All others	14	7,538	9,059	10	5,398	6,272
Total	330	226,105	218,165	365	350,528	305,591
In ballast:						
American	4	2,442	.....	2	742	.....
Italian	1	516	.....	65	37,413	.....
All others	3	1,451	.....	54	48,779	.....

During the year 1884, 148,281 tons of freight were entered and 305,684 were cleared in vessels trading between Italy and the United States. While the number of tons of freight cleared from the United States in 1885 was only 93 tons less than in 1884, the increase in the number of tons entered was greater by 69,884.

Grouping the results together we find the following results:

Items.	Number of vessels.	Tonnage.
Increase in 1885 over 1884 of entries and clearances at all Italian ports	17,029	3,716,018
Increase of entries and clearances under foreign flags	2,250	1,456,780
Increase of entries and clearances of vessels under the American flag	4	3,542
Increase of freight brought from the United States	.....	69,884
Decrease of entries and clearances of vessels engaged in deep-sea fisheries	656	9,129
Decrease of freight cleared for the United States	.....	93

On the whole there has been a substantial increase of the commerce of Italy in 1885, whereas in 1884 there was a serious decrease as compared with 1883. The failure of the tunny fishery in 1885 is to a large extent the cause of the decrease in that year of the Italian deep-sea fisheries.

MERCANTILE MARINE.

Number and tonnage of merchant vessels launched in Italy in 1885.

launched	39	
	197	

in 1884 was $964,195, from which it appears that there has been a decrease of $399,370 in the value of the vessels launched in 1885.

There were launched in 1885, 3 steamers of an aggregate tonnage of 574, and 194 sailing vessels of an aggregate tonnage of 10,154. But one vessel of more than 400 tons was launched during the year. There were on January 1, 1885, in construction in Italian ship-yards 3 steamers and 56 sailing vessels.

Number and tonnage of sailing vessels belonging to the Italian mercantile marine in 1885.

Size.	Number of vessels.	Tonnage.	Size.	Number of vessels.	Tonnage.
1 to 10 tons	2,323	14,465	501 to 600 tons	205	114,121
11 to 30 tons	1,648	28,274	601 to 700 tons	119	75,034
31 to 50 tons	816	32,616	701 to 800 tons	100	73,242
51 to 100 tons	679	50,305	801 to 900 tons	60	51,929
101 to 200 tons	359	51,679	901 to 1,000 tons	34	33,036
201 to 300 tons	210	53,495	1,001 to 1,400 tons	25	28,259
301 to 400 tons	216	76,626			
401 to 500 tons	317	146,037	Total	7,111	828,819

The number of sailing vessels belonging to the Italian mercantile marine in 1884 was 7,072, with a tonnage of 848,704. There has thus been in 1885 an increase of 39 vessels and a decrease in tonnage of 19,885 tons.

Number and tonnage of the steamers belonging to the Italian mercantile marine in 1885.

Size.	Number of vessels.	Tonnage.	Size.	Number of vessels.	Tonnage.
1 to 50 tons	61	1,179	701 to 800 tons	10	7,506
51 to 100 tons	16	1,208	801 to 900 tons	11	9,555
101 to 200 tons	18	2,345	901 to 1,000 tons	2	1,865
201 to 300 tons	20	4,862	1,001 to 1,500 tons	28	34,237
301 to 400 tons	14	4,879	Over 1,500	21	43,508
401 to 500 tons	7	3,058			
501 to 600 tons	8	4,536	Total	225	124,600
601 to 700 tons	9	5,842			

The number of steamers belonging to the Italian mercantile marine in 1884 was 215, with a tonnage of 122,297. There has therefore been an increase of 10 steamers and an increase of 2,303 tons in 1885.

Number and tonnage of Italian sailing vessels in 1885, *compared with the four preceding biennial periods.*

Size.	1885.		1883.		1881.		1879.		1877.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
1 to 10 tons	2,323	14,465	2,302	13,748	2,434	14,068	2,486	12,915	4,282	21,738
11 to 30 tons	1,648	28,274	1,785	29,979	1,913	32,159	1,980	32,163	2,640	44,367
31 to 50 tons	816	32,616	792	31,512	789	31,415				
51 to 100 tons	679	50,305	673	49,194	695	50,764	1,553	81,407	1,774	93,156
101 to 200 tons	359	51,679	344	49,794	361	42,523	368	51,324	414	59,994
201 to 300 tons	210	53,495	216	54,870	236	60,054	249	61,985	288	72,189
301 to 400 tons	216	76,626	238	84,268	263	92,978	273	99,751	309	109,092
401 to 500 tons	317	146,037	348	159,919	366	167,947	372	169,109		
501 to 600 tons	205	114,121	224	124,400						
601 to 700 tons	119	75,034								
701 to 800 tons										

Number and tonnage of the Italian steamers in 1885, *compared with the four preceding biennial periods.*

Size.	1885.		1883.		1881.		1879.		1877.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
1 to 50 tons	61	1,779	53	1,071	42	904	34	693	34	797
51 to 100 tons	16	1,208	18	1,292	15	1,052	16	1,125	22	1,561
101 to 200 tons	18	2,345	15	1,998	13	1,754	13	1,698	14	1,789
201 to 300 tons	20	4,862	16	3,975	8	1,983	9	2,245	8	1,871
301 to 400 tons	14	4,890	14	4,895	13	4,316	13	4,516	18	6,162
401 to 500 tons	7	3,058	5	2,134	13	4,711	12	5,362	8	3,627
501 to 600 tons	8	4,536	7	3,993	5	2,813	4	2,219	7	3,879
601 to 700 tons	9	5,842	9	5,842	6	3,790	4	2,538	7	4,436
701 to 800 tons	10	7,506	10	7,506	9	6,767	5	3,679	2	1,574
801 to 900 tons	11	9,555	11	9,553	8	6,818	6	5,092	8	6,881
901 to 1,000 tons	2	1,865	3	2,858	7	6,626	7	6,607	7	6,614
1,001 to 1,500 tons	28	34,237	23	27,217	29	34,568	28	36,891	16	19,134
Over 1,500 tons	21	43,508	17	35,118	8	16,376				
Total	225	124,600	201	106,452	176	93,698	151	72,666	151	58,319

Number of men employed in the Italian mercantile marine in 1885.

Occupation.	Number.
Masters	10,593
Mates	638
Pursers and clerks	76
Engineers	448
Able seamen	7,726
Ordinary seamen and boys	93,420
Firemen	1,548
Deep-sea fishermen	5,243
Naval engineers and constructors	259
Carpets, &c	13,972
Workmen in iron-ship building	1,830
Pilots	272
Coast fishermen	44,485
Boatmen	11,536
Total	192,046

In 1884 the total number of men and boys was 189,162. There have been added to this force, in 1885, 2,884 persons, more than half being boys.

There were 687 desertions from the Italian mercantile marine in 1885, or 142 fewer than in 1884. Of these 687 desertions 107 took place in American waters.

It is evident from the foregoing statements that the Italian mercantile marine was in very nearly the same condition in 1885 that it was in 1884. The downward movement was, it is true, arrested, but there was no increase of tonnage worth mentioning.

SHIPPING BOUNTIES.

In December, 1885, the Italian Parliament passed a law for the encouragement of Italian ship-building and commerce, the chief provis-

ions of which are as follows:

ship builders.

law, 65 cents per ton for every 1,000 miles of distance sailed, subject, however, to the following conditions: Sailing vessels, in order to receive this bounty, must not be more than fifteen years old, and steamers must not be more than ten years old. No vessels sailing in ballast can receeive this bounty, and it will be paid only to vessels sailing from continent to continent. The law is to remain in force for a period of ten years.

Of course the law was passed too late to have any effect upon the mercantile marine in 1885. From the date of the passage of the law, December 6, 1885, to the 30th of June, 1886, 22 steamers and 332 sailing vessels had taken advantage of the premium offered for every 1,000 miles sailed in international navigation. Of these steamers 19, aggregating 32,700 tons, belong to the General Italian Navigation Company. This company now owns a fleet of 109 steamers of 57,633 tons, and when it is remembered that the entire Italian steam fleet consists of 225 vessels of 124,600 tons, and that there is only one other company (La Veloce, of Genoa, owning 4 steamers of 6,337 tons) of any consequence, which is engaged in international commerce, it is evident that the General Italian Navigation Company will be the chief recipient of the Government's bounty. At the time of the passage of the law this company had lines of steamers running from Italy to North America, the Atlantic coast of South America, and to India, as well as to all points on the Mediterranean. It has since then established lines to Valparaiso, and also to Singapore, Batavia, and Hong-Kong.

There were also made, up to June 30, 1886, 86 claims for the construction of wooden sailing vessels, 12 for the construction of small iron or steel steamers (all of which were tow-boats), and 1 for the construction of an iron launch. There were 15 claims for the construction of engines and boilers, 13 for the construction of boilers only, and 1 for the construction of an engine. For the repairing of vessels 150 claims were made, and 35 were made for repairs to boilers.

EXPORTS AND IMPORTS.

Commerce of Italy with other nations in 1885 *compared with* 1884.

Articles.	Imports.		Exports.	
	1885.	1884.	1885.	1884.
Spirits, wines and oils	$16,347,654	$10,904,996	$21,905,186	$31,767,852
Groceries, spices and tobacco	24,328,894	17,473,845	1,185,851	1,082,229
Chemicals, drugs, resins, and perfumery	6,953,190	7,942,273	6,970,828	7,880,321
Dyes, dye-stuffs, and articles for tanning purposes	4,813,356	4,738,660	2,360,166	2,662,078
Hemp, flax, jute, &c	7,055,512	6,972,610	8,068,240	8,401,064
Cotton	34,063,342	34,131,976	4,864,550	5,788,513
Wool and hair	19,988,026	20,283,004	1,128,418	1,787,788
Silk	17,647,051	19,406,791	53,455,171	57,939,064
Wood and straw	11,307,377	10,817,872	12,004,921	11,557,345
Books and paper	2,993,007	2,542,782	1,515,492	1,810,504
Skins, hides, and furs	12,926,143	11,646,514	3,951,087	4,328,619
Minerals and metals	54,460,859	35,624,329	41,495,000	9,869,921
Stone, earths, pottery, and glass	20,122,043			
Cereals, flour, and vegetable pro				

As will be seen from the foregoing statement the imports of 1885 exceeded those of 1884 by $44,692,495, and the exports of 1885 exceeded those of 1884 by $7,050,962. The following statement shows the categories of the Italian tariff in which these differences occurred:

Differences of imports and exports in 1885 and 1884.

Articles.	Imports.		Exports.	
	Increase in 1885.	Decrease in 1885.	Increase in 1885.	Decrease in 1885.
Spirits, wines, and oils	$5,442,658			$9,862,672
Groceries, spices, and tobacco	6,855,049		$103,622	
Chemicals, drugs, resins, and perfumery		$989,083		909,493
Dyes, dye-stuffs, and articles for tanning purposes	74,696			301,912
Hemp, flax, jute, &c	82,902			332,824
Cotton		68,634		923,963
Wool and hair		294,978		659,370
Silk		1,759,740		4,483,893
Wood and straw	489,505		447,576	
Books and paper	450,225			295,012
Skins, hides, and furs	1,279,629			377,532
Minerals and metals	18,836,530		31,632,969	
Stone, earths, pottery, and glass	924,493			1,807,619
Cereals, flour, and vegetable products not elsewhere included	11,908,768			2,184,128
Animals and animal products not elsewhere included	1,370,706			4,058,058
Miscellaneous	89,769		163,271	
Total	47,804,930	3,112,435	33,347,438	25,196,476

Commerce of Italy with other nations in 1885 compared with 1884.

Countries.	Imports.		Exports.	
	1885.	1884.	1885.	1884.
Austria	$45,568,651	$39,772,861	$19,645,377	$21,483,409
Belgium	6,584,967	5,868,744	3,950,131	3,928,322
France	70,984,435	55,843,778	99,135,801	82,062,149
Germany	23,241,060	21,370,890	21,174,650	21,085,443
Great Britain	60,618,212	57,947,285	14,235,487	17,306,310
Greece and Malta	4,313,936	1,214,935	3,218,082	2,530,616
Holland	2,349,389	1,639,535	1,386,705	1,604,988
Russia	17,661,430	9,809,418	3,501,599	4,397,312
Spain, Gibraltar, and Portugal	2,744,653	1,437,657	2,796,956	2,459,592
Sweden, Norway, and Denmark	827,005	852,288	344,505	484,816
Switzerland	14,855,210	14,521,513	24,099,717	24,925,371
European Turkey	9,281,370	5,016,649	2,783,446	2,553,004
Asiatic Turkey	3,870,808	1,638,377	319,415	525,732
British India	14,770,483	19,255,996	3,150,339	4,611,735
China and Japan	94,763	981,019	36,670	20,072
Egypt	4,088,319	3,346,813	2,532,932	3,028,170
Tunis and Tripoli	3,873,317	1,924,596	2,113,543	1,420,480
Algiers	1,072,694	333,504	276,569	340,645
Other African countries	185,280	12,545	399,703	161,541
United States and Canada	13,985,938	11,622,846	8,228,169	10,630,247
River Plate	3,089,544	3,380,009	4,628,333	4,095,846
	11,580	186,052	350,488	554,875
			912,890	1,373,174
				27,985

Total imports from and exports to the United States and Canada for the five years ending December 31, 1884.

IMPORTS.

Articles.	1881.	1882.	1883.	1884.	1885.
Spirits, wines, and oils	$4,235,808	$3,417,065	$4,044,701	$3,826,611	$3,907,478
Groceries, spices, and tobacco	1,848,747	4,261,440	1,771,354	2,229,729	3,668,930
Chemicals, drugs, resins, and perfumery	1,042,779	598,686	1,113,417	1,573,722	1,022,128
Dyes and dye-stuffs, and articles for tanning purposes	9,457	33,582	115,221	93,026	83,376
Hemp, flax, jute, &c	----------	8,878	1,544	4,246	9,843
Cotton	2,891,333	3,118,687	2,250,766	1,980,373	3,118,880
Wool and hair	230,249	740,541	537,312	363,805	352,032
Silk	----------	----------	----------	----------	----------
Wood and straw	201,878	121,783	94,570	128,731	290,079
Books and paper	965	2,702	1,544	6,549	11,966
Skins, hides, and furs	464,744	96,690	652,340	540,593	446,023
Minerals and metals	24,704	54,426	207,668	94,184	132,012
Stone, earth, pottery, and glass	67,936	60,023	35,126	199,176	54,426
Cereals, flour, and vegetable products not elsewhere included	783,001	485,781	83,762	303,203	520,714
Animals and animal products not elsewhere included	434,443	311,888	382,486	239,899	334,276
Miscellaneous	----------	3,088	8,492	20,262	33,775
Total	12,236,042	13,315,260	11,300,303	11,604,109	13,985,938

EXPORTS.

Spirits, wines, and oils	$294,904	$1,120,751	$928,488	$684,764	$546,962
Groceries, spices, and tobacco	359,173	288,535	370,946	305,133	88,587
Chemicals, drugs, resins, and perfumery	608,915	1,069,220	1,064,588	939,331	1,389,793
Dyes and dye-stuffs, and articles for tanning purposes	345,856	370,946	506,625	419,003	387,930
Hemp, flax, jute, &c	161,120	56,935	121,011	74,305	85,885
Cotton	33,968	7,334	31,073	40,723	158,452
Wool and hair	193,386	260,473	26,441	61,953	45,355
Silk	120,239	65,234	18,528	20,261	76,235
Wood and straw	984,686	957,280	246,654	98,044	341,057
Books and paper	198,211	268,463	222,336	136,351	77,586
Skins, hides, and furs	43,425	17,177	55,584	97,079	1,544
Minerals and metals	208,054	139,732	226,968	12,545	283,131
Stone, earth, pottery, and glass	3,699,231	3,533,058	3,318,635	2,904,843	2,324,492
Cereals, flour, and vegetable products not elsewhere included	3,657 929	3,553,323	4,038,686	4,582,399	2,850,417
Animals and animal products not elsewhere included	42,267	107,115	179,297	195,316	160,962
Miscellaneous	48,638	48,636	33,389	58,093	88,780
Total	10,670,000	11,864,482	11,389,249	10,630,147	8,807,168

Imports into Italy from the United States and Canada in 1885.

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Spirits:					
Pure ..... galls..	340,924	$124,485	Oxide of iron, lead, and zinc ..... lbs..	21,163	$579
Refined ..... do...	3,962	5,246	Borate of soda ..... do...	3,968	193
In bottles ..... No..	1,600	772	Cinchona bark ..... do...	5,292	965
Olive oil ..... lbs..	70,326	6,948	Miscellaneous medicines, prepared ..... lbs..	5,292	2,316
Cotton-seed oil ..... do...	4,698,002	349,523	Resins ..... do...	7,746,303	1,017,110
Heavy oils ..... do...	206,350	2,702	Dyes and dye-stuffs (not		
Fixed oils ..... do...	439,596	32,617			
Petroleum and mineral oils refined ..... lbs..	193,391,962	3,386,185			
Coffee ..... do.	1 pp.				
Sugar					

Imports into Italy from the United States and Canada in 1885—Continued.

Articles.	Quantity.	Value.
Cotton tissues—Cont'd.		
Colored or dyed.....lbs..	3,306	$1,737
Oil-cloth.....do...	6,393	2,316
Wool:		
Raw.....do...	1,756,842	330,609
Washed.....do...	19,620	6,369
Hair (not human) raw and dyed.....lbs..	55,114	13,510
Made up woolen articles, pounds.....	.....	1,544
Wood:		42,846
For cabinet-makers, pounds.....	1,397,274	220,599
Common, cub. meters..	25,399	965
Barrels, new and old, gallons of capacity.....	118,052	3,860
Furniture.....lbs..	12,124	1,158
Wooden utensils....do...	15,428	11,580
Matting, straw, common, pounds.....	220,460	386
Straw hats.....No..	1,200	772
White paper.....lbs..	7,494	4,632
Wall-paper.....do...	28,218	3,088
Books:	7,152	
Unbound.....do...		3,474
Bound in leather and parchment....lbs..	5,732	11,966
Patent leather.....do...	9,038	386
Scrap leather.....do...	21,163	388,123
Hides:	1,672,850	
Bovine.....do...		35,898
Small, ovine and caprine.....lbs..	149,028	4,246
Other small.....do..	24,030	5,404
Tanned and unhaired.....lbs..	12,124	
Cast iron:		4,825
Not manufactured, pounds.....	79,803	965
Manufactured...lbs..	4,629	
Iron hammered and wrought.....lbs..	21,824	193
Iron and steel rails..do...	127,421	16,405
Tin, manufactured..do...	4,188	386
Miscellaneous tools and utensils of iron and steel.....lbs..	51,365	3,860
Copper, brass, and bronze articles....lbs..	1,543	386

Articles.	Quantity.	Value.
Tin.....lbs..	4,409	$772
Zinc in sheets.....do...	220,460	11,387
Machinery, fixed, steam, pounds.....	21,383	1,930
Machinery, and parts of, miscellaneous....lbs..	632,275	66,392
Clocks.....No..	1,002	6,755
Clock cases.....lbs..	4,188	9,071
Clock works.....do...	2,984	865
Marble, wrought..do...	3,086	193
Coal.....tons..	11,733	54,233
Grain.....do...	3,462	130,275
Indian corn.....do...	6,776	189,719
Other cereals.....do...	4,490	147,259
Rice.....do...	75	4,053
Flour.....lbs..	420,858	11,001
Bran.....do...	132,276	1,351
Fecula.....do...	88,184	2,702
Starch.....do...	24,911	1,351
Oleaginous seeds..do...	525,576	14,668
Other seeds.....do...	331,571	13,124
Oil of palm and cocao, pounds.....	65,074	5,211
Meat:		
Salted and smoked, pounds.....	7,273	1,351
Cooked.....do...	4,409	772
Gut, salted.....do...	31,305	4,053
Fish:		
Dried or smoked, pounds.....	1,745,822	91,675
In oil.....lbs..	7,152	386
In brine.....do...	7,936	579
Grease.....do...	2,604,954	193,772
Stearic acid.....do...	8,818	1,158
Candles, stearine..do...	3,306	579
Beeswax, crude....do...	15,853	3,860
Coral, wrought but not mounted.....lbs..	934	16,405
Horns, bones, and the like.....tons..	682	19,686
Haberdashery:		
Common.....lbs..	9,920	6,562
Fine.....do...	6,612	14,475
Instruments, optical, surgical, and chemical.....lbs..	8,596	11,194
Harmoniums.....No..	3	193

Exports from Italy to the United States and Canada in 1885.

Articles.	Quantity.	Value.
Wine in wood.....galls..	418,154	$58,093
Wine in bottles.....No..	79,800	30,880
Spirits in bottle.....do...	39,300	18,142
Olive oil.....lbs..	2,806,674	319,415
Fixed oils, miscellaneous, pounds.....	330,247	24,511
Volatile oils, essences of orange and the like,	30,930	37,828
Miscellaneous medicinal herbs, leaves, flowers, and bark.....lbs..	164,242	$14,475
Manna.....do...	39,902	17,563
Orange and lemon peel, pounds.....	24,250	386
Lemon and citron juice, crude.....lbs..	81,346	1,158
Lemon and citron juice, concentrated.....lbs..	711,424	55,970
Miscellaneous vegetable	251,765	50,180

Exports from Italy to the United States and Canada in 1885—Continued.

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Hemp, raw.....lbs..	119,489	$8,878	Marble and alabaster, wrought.....lbs..	2,843,934	$124,485
Jute, raw.....do...	7,152	386	Earths, for dyes and paints.....lbs..	854,737	7,527
Hemp, flax, and jute, combed.....lbs..	3,526	386	Stone and non-metallic ores.....lbs..	115,522	4,053
Cordage.....do...	228,836	26,055	Sulphur, raw and refined, tons.....	105,689	1,835,816
Linen and hemp fabrics:			Pottery, common...lbs..	63,712	579
Unbleached.....lbs..	2,646	772	Majolica ware, fine.do...	9,700	965
Bleached.....do...	23,369	8,299	Bottles.....No..	6,600	193
Linen laces and tulles, pounds.....	851	33,582	Vegetables, dried.tons..	247	9,457
Made up linen goods.lbs..	32,848	7,527	Cereals.....do...	148	4,825
Cotton:			Chestnuts.....do...	65	2,702
Raw.....lbs..	890,658	89,745	Rice.....do...	3,901	263,445
Thread, bleached do...	22,487	4,439	Maccaroni.....lbs..	2,873,694	120,818
Thread, twisted and bleached.....lbs..	5,511	1,351	Sea biscuit.....do...	23,589	772
Cotton tissues, colored or dyed.....lbs..	73,411	26,055	Starch.....do...	13,444	772
Buttons.....do...	30,642	17,756	Oranges and lemons do...	103,985,727	1,871,241
Made up cotton goods, pounds.....	48,501	19,107	Citrons.....do...	66,800	2,316
Wool, raw.....lbs..	1,102	386	Carub beans.....do...	65,034	772
Woolen mattresses..do...	13,665	3,474	Pistachio nuts.....do...	4,850	2,509
Woolen tissues.....do...	26,014	18,335	Almonds, not shelled, pounds.....	1,857,375	252,058
Woolen hosiery.....do...	8,818	12,352	Filberts and walnuts, pounds.....	3,318,363	188,754
Woolen carpets.....do...	4,850	1,737	Oleaginous fruit....lbs..	11,242	965
Made up woolen goods, pounds.....	5,511	9,071	Figs, dried.....do...	536,377	13,124
Silk:			Raisins.....do...	965,614	42,267
Raw.....lbs..	12,344	59,444	Miscellaneous dried fruit, pounds.....	140,433	4,825
Spun, colored and dyed.....lbs..	386	1,737	Fruit and vegetables, in brine and vinegar.lbs..	186,509	16,415
Tissues.....do...	1,400	11,194	Fruit and vegetables, in spirits of wine...lbs..	21,383	3,088
Laces.....do...	487	3,860	Fruit and vegetables, fresh.....lbs..	37,254	772
Barrels, new and old, gallons in capacity.....	113,593	1,544	Mushrooms.....do...	20,722	9,071
Furniture, common, not upholstered.....lbs..	7,714	1,158	Miscellaneous vegetable products.....lbs..	1,278,888	11,194
Oars and poles.....do...	70,106	33,375	Seeds:		
Cork:			Oleaginous.....lbs..	204,586	5,790
Not manufactured, pounds.....	39,458	4,825	Non-oleaginous do...	1,854,068	73,147
Manufactured...lbs..	25,793	1,351	Meat, salted and smoked, pounds.....	85,097	16,415
Wooden tools and utensils.....lbs..	3,306	1,158	Fish:		
Vessels and small boats, tons.....	90	15,826	Dried and smoked, pounds.....	6,172	386
Kindling wood.....lbs..	12,565	193	In brine.....lbs..	88,404	6,562
Matting, common...do...	179,014	9,457	Preserved in boxes, pounds.....	44,092	5,597
Straw braids.....do...	4,850	$9,264	Butter.....lbs..	45,194	10,036
Straw hats.....do...	1,091,717	162,506	Cheese.....do...	375,884	59,251
Rags.....do...	2,070,559	59,830	Grease.....do...	23,589	1,737
Paper, fine.....do...	81,286	7,720	Bees-wax, crude....do...	7,273	1,930
Blotting paper.....do...	2,865	193	Feathers for trimming, pounds.....	66	1,544
Wrapping paper....do...	175,485	5,404	Hats:		
Prints and lithographs, pounds.....	1,984	2,509	Not trimmed...lbs..	483	2,509
Books.....lbs..	5,732	1,930	Trimmed.....do...	3,081	40,530
Boots and shoes..100p'rs..	10	1,544	Coral:		
Iron ore.....tons..	119,620	253,988	Rough.....lbs..	95	386
Tin, manufactured..lbs..	199,723	13,124	Wrought but not mounted.....lbs..	785	13,703
Copper, brass, and bronze, manufactured, pounds.....	10,802	2,316	Fertilizers.....tons..	25	386
Type (lead alloyed).do...	21,824	5,597	Haberdashery:		
Antimony and arsenic, pounds.....	64,152	5,597	Common.....lbs..	42,768	24,318
Mercury.....lbs..	8,818	2,509	Fine.....do...	3,086	1,930
Marble, block.....tons..	122	1,351	Felt hats.....No..	45,600	35,126
Marble and alabaster slabs.....lbs..	35,043,218	337,557	Artificial flowers...lbs..	282	3,667
Marble and alabaster statuary.....			Umbrellas, silk.....No		

Of the categories in which the increase of imports in 1885 was most noticeable, it may be said the increase in the category of minerals and metals, in which is included machinery, is due in a large measure to the growth of Italian industries. The same may be said of the increased importation of cotton, and of skins and hides. The increase in the importation of cereals in 1885 was very large, and the large increase in the importation of groceries is an evidence of the increased prosperity of the people.

The increase of imports from the United States in 1885 was $2,363,092, and the decrease in the value of exports to the United States was $2,402,078. The increase in imports from the United States was due chiefly to the increase of $1,312,593 in raw cotton; of $21,423 in machinery; of $113,098 in common wood; of $764,646 in tobacco; of $205,931 in cotton-seed oil, and of $387,718 in raw bovine hides.

The decrease in exports to the United States was to some extent affected by the cholera in Italy, which also seriously affected the Italian import trade. There was a decrease of $126,608 in the value of the exports of statuary (marble and alabaster); of $59,830 in rags; of $1,939,351 in oranges and lemons; and of $111,168 in grease.

IMPORTS AND EXPORTS IN THE FIRST SIX MONTHS OF 1886.

The total value of imports into Italy (excluding gold and silver coins and bullion) in the first six months of 1886 was $132,562,827, and the total value of exports from Italy during the same period (excluding gold and silver coin and bullion) was $111,037,197. This shows a decrease of imports as compared with the same period in 1885 of $12,539,595, and an increase of exports of $26,221,852.

CHOLERA.

The cholera has lingered in Italy, not only during the year 1885, but up to the present time. Its ravages in 1885 were, however, much less severe than in 1884. In the latter year there were 26,557 cases and 14,203 deaths, while in 1885 there were 6,397 cases and 3,459 deaths.

The present epidemic has been much less fatal than its predecessor. The total deaths from cholera in Italy in 1884 and 1885 were 17,758, while in 1865 there were 12,843 deaths; in 1866, 19,629; and in 1867, 127,968.

So far as remedies for cholera are concerned, it is not clear that the remedial treatment to-day is much more efficacious than it was in former days. A great advance, however, has been made in the direction of the preventive measures and in the knowledge of the way in which the disease is conveyed.

That during the present epidemic cholera has been to a very large extent spread by contaminated water has been made very clear. In [illegible] the aqueduct bringing water from a small river was con- [illegible] at a little town a short [illegible] were

munes in April, 1886. There were also quite a number of cases between January 1, 1886, and June 30, 1886, in Bologna and other towns in its neighborhood.

The extent of the cholera in Italy in the winter of 1885, 1886, was greatly exaggerated by German, Swiss, and French hotel keepers, and it nowhere, except in the remote southeastern districts of Italy, assumed alarming proportions.

The following statement shows the extent of the cholera in Italy in 1885:

Statistics of cholera in Italy in 1885.

Provinces.	Number of communes attacked.	Total cases.	Total deaths.	Date of first case in each province.	Date of last case in each province.
Alessandria	3	21	9	Aug. 17	Oct. 17
Bologna	1	1	.....	Sept. 11	Sept. 11
Caltaniooetta	1	1	.....	Sept. 7	Sept. 7
Caserta	1	9	7	Aug. 21	Sept. 1
Cremona	1	1	.....	Aug. 10	Aug. 10
Cuneo	3	4	3	Sept. 15	Sept. 21
Ferrara	5	112	48	Sept. 24	Oct. 25
Genoa	15	66	43	Aug. 4	Nov. 14
Girgenti	3	3	2	Sept. 17	Sept. 24
Leghorn	1	1	1	Sept. 17	Sept. 17
Mantua	1	1	.....	Oct. 2	Oct. 2
Massa	7	65	38	Aug. 3	Oct. 14
Messina	2	2	.....	Sept. 21	Sept. 21
Milan	1	1	1	Sept. 29	Sept. 29
Modena	3	34	18	Aug. 17	Nov. 14
Naples	1	1	.....	Aug. 1	Aug. 1
Novara	1	2	2	Sept. 1	Sept. 1
Padua	5	11	3	Oct. 6	Nov. 3
Palermo	14	5,535	2,959	Sept. 6	(?)
Parma	27	313	202	Aug. 14	Oct. 31
Pavia	2	5	3	Sept. 21	Oct. 11
Piacenza	1	1	1	Aug. 15	Aug. 15
Porto Maurizio	4	10	7	Aug. 11	Sept. 11
Reggio Emilio	10	47	26	Sept. 11	(?)
Rovigo	22	81	56	Sept. 15	(?)
Trapani	4	35	9	Sept. 28	Nov. 9
Venice	13	34	21	Aug. 11	(?)

PROTECTION OF CHILDREN.

The following law for the protection of children was promulgated by royal decree on the 11th day of February, 1886, but by its terms did not go into operation until last August:

ARTICLE I.

It is prohibited to admit to labor in manufactories, quarries, and mines children of either sex under the age of nine years, or under the age of ten years, in underground works. Children over nine years of age and less than fifteen cannot be admitted to work in manufactories, quarries, or mines without medical certificates from the district council that they are healthy and adapted for the work which they desire to undertake.

ARTICLE II.

In dangerous or unhealthy labor children of either

ARTICLE IV.

Whoever violates the terms of this law will be punished by a fine of from 50 lire [$9.65] to 100 lire [$19.30] for each child admitted to work. If the offense is not the first one, the fine may be increased to double the aforesaid sum. In cases in which the offender who has taken the child to work is unknown, the fine will be inflicted upon the director or jobber who has charge of the manufactory, quarry, or mine.

ARTICLE V.

The execution of the law is assigned to the ministry of agriculture and commerces which will act in concert with the ministry of the interior. Engineers of mines and superintendents of manufactories will exercise surveillance over manufactories, quarries, and mines, and will report violations of the law. Documents relating to violations of the law shall be transmitted to the prefect of the province, who, when, ever needful, may consult the provincial sanitary council, and shall present the case- to the judicial authorities.

ARTICLE VI.

The regulations to be prepared for the execution of this law, on the advice of the superior councils of health and commerce, will contain details applicable to local- ities.

The present law will take effect six months after its publication in the Official Gazette. We order that the present, under the seal of the State, be inserted in the official collection of laws and decrees of the Kingdom of Italy, commanding whom- soever it may concern to observe it and make it observed as a law of the state.

Given at Rome the 11th day of February, 1886.

TREATIES.

The only treaty concluded between Italy and any other country be- tween June 30, 1885, and June 30, 1886, was a treaty with Uruguay, which was signed on the 19th day of September, 1885. The main pro- visions of this treaty are as follows:

There shall be complete and entire freedom of commerce and navi- gation between Italy and Uruguay.

The citizens of one country shall enjoy in the other the same rights, privileges, immunities, and exemptions for their commerce and navigation which are or shall be enjoyed by the citizens of the other, without pay- ing any greater tax or impost than is paid by the latter. Ships of one country shall be treated in the ports of the other as those of the most favored nation.

Citizens of one country shall enjoy in the other the same rights to reside, travel, or carry on business which are enjoyed by the citizens of the other country, and shall enjoy exemption from military service of all kinds, and their property shall be exempt from sequestration for public use.

Each of the contracting parties agrees not to accord in its own do- minions monopolies or privileges prejudicial to the commerce of the other.

The coasting trade of each country is open to the vessels of the other country on the same terms as if they were vessels belonging to the citizens of the country where such coasting trade is carried on.

In case of war between Italy and Uruguay, private property will be [illegible] land or at sea or under whatever flag, except in [illegible] is contraband of war.

Disputes as to the interpretation or execution of this treaty are to be submitted to commissions of arbitration selected by the two Governments by common consent. This treaty is to remain in force for ten years from its date, and if one year before its expiration notice of its abrogation is not given by one of the parties to the other, it will remain in force an additional year.

REVENUE AND EXPENDITURES.

Revenue and expenditures of the Italian Government for the fiscal year ending June 30, 1886.

Receipts.	Amount.
ORDINARY REVENUE.	
Direct taxes:	
Rents for state property	$3,754,048
Land tax and building tax	36,306,348
Income tax	39,671,228
Business taxes:	
Administration tax of the ministry of finance	33,848,266
Tax on railway traffic	3,034,884
Legation and consular fees	157,948
Excise and customs:	
Taxes on the manufactures of spirits, beer, sugar, &c	5,156,958
Customs and maritime dues	38,935,290
Octroi duties	15,300,746
Tobacco (monopoly)	35,064,862
Salt (monopoly)	13,931,286
Miscellaneous taxes:	
Fines and penalties	1,479
State lottery	14,162,057
Public service:	
Posts	7,685,381
Telegraphs (state)	2,335,273
Railways (state)	8,472,251
Other services	3,340,536
ORDINARY REVENUE—continued.	
Reimbursements	$4,257,475
Miscellaneous receipts	2,048,605
Drawbacks	17,783,549
Total	285,248,470
EXTRAORDINARY REVENUE.	
Amounts repaid to the city of Ancona on octroi tax	5,790
Reimbursements	1,581,298
Various receipts	49,893
Arrears of taxes	175,985
Sales of property and franchises	3,934,664
Recovery of debts	246,409
Arrears of debts	1,131,383
Railway construction	39,092,436
Miscellaneous	32,497
Total	46,250,355
Total ordinary and extraordinary	331,498,825

Expenditures for the fiscal year ending June 31, 1886.

Expenditure.	Amount.
Department of the treasury	$151,802,242
Department of finances	34,293,222
Ministry of grace and justice	6,467,818
Ministry of foreign affairs	1,513,515
Ministry of public instruction	6,706,463
Ministry of the interior	11,926,012
Ministry of public works	47,270,539
Ministry of war	49,829,191
Ministry of the navy	17,774,258
Ministry of agriculture, industry, and commerce	$2,631,848
Total	330,215,122
Total receipts	331,498,825
Excess of receipts over expenses	1,283,703

The total receipts, ordinary and extraordinary, during the fiscal year ending June 30, 1885, were $323,867,478. There was therefore an increase in the receipts during the last fiscal year of $7,631,347. On the other hand, the total expenditures during the last fiscal year were $20,784,538 less than during the preceding year. On June 30, 1885, the expenditures had exceeded the receipts by no less than $27,132,182. On June 30, 1886, the receipts were $1,283,703 in excess of the expenditures. The decrease in expenditures was mainly in the [illegible] treasury, and was to a [illegible] quantity [illegible]

PUBLIC DEBT.

On the 30th of June, 1886, the public debt of the Kingdom of Italy, including the floating debt, amounted to $2,202,886,026, with an annual interest amounting to $103,120,752. This debt was composed as follows:

Consolidated debt inscribed in the Great Book	$1,737,000,000	
Permanent rents in the name of the Holy See	12,448,500	
Debts separately inscribed in the Great Book	102,676,000	
Various debts (*contabilita*, diverse)	307,915,430	
Floating debt	42,846,096	
Total		2,202,886,026

During the year the Italian 5 per cent. bonds rose above par, and continue at the date of the present writing to remain at 101 and a fraction. Those patriotic and intelligent persons who, having faith in the future of Italy, bought those bonds ten or fifteen years ago have reaped a rich and deserved harvest.

WILLIAM L. ALDEN,
Consul-General.

CONSULATE-GENERAL OF THE UNITED STATES,
Rome, November 12, 1886.

NETHERLANDS.

Report of Consul Eckstein on the trade and commerce and other material interests of Amsterdam and in the Netherlands in 1885.

TRADE DEPRESSION.

In a report on same subjects, I made last year (dated September 3, and published in Consular Reports, January, 1886, No. 60) I had occasion to make the following remarks, viz:

Within this consular district and in the Netherlands generally, the year 1884 has been replete with disappointments to nearly all interested in commerce, navigation, and industry.

While commerce and trade were subject to unfavorable conditions, it was natural that navigation and industry should be gravely affected, and suffer more or less at the same time.

Freights were very low throughout the whole year, and cargoes often scarce.

Many industrial establishments found themselves short of work, and were compelled to discharge large numbers of workmen.

Neither have agricultural affairs been flourishing. Land-owners, farmers, and dairymen have good cause to be dissatisfied and to complain, the former because land depreciated in value and rents have come down, while taxes have not been lowered, and the latter on account of lower prices for many articles, the product of the farm and dairy.

Thus heavy losses were sustained from transactions in many articles of commerce; poor results were attained from navigation; most industries were in a state of extreme [illegible] in addition thereto there has been a considerable shrinkage in [illegible] income of the year 1884, in

Holland fully in proportion to the share it enjoys in the world's commerce and in other substantial and important interests of the same.

In this place it may be mentioned that another and perhaps the chief cause for the situation of affairs, commercial and otherwise, having become and remaining so long so exceedingly unfavorable and unsatisfactory in the Netherlands is clearly traceable to the for some years last past prevailing poor and depressed condition of the colonies. The cultivation there of some of the principal products of the soil has become very unremunerative to all parties interested therein, and as a consequence thereof the purchasing power of the laboring classes, the great body of the native population, has become very largely reduced.

A combination of other untoward circumstances, inclusive of the unsettled and precarious state of Atjih, entails nowadays yearly upon the Government far larger expenditures than the revenues derived from the colonial possessions amount to. To the mother country in general they seem to bring, in these days, more disappointment and loss than they tend to its prosperity, and altogether they cause a good deal of anxious solicitude in many quarters.

Regarding the course and volume of the trade of Amsterdam in 1885, import and export, in many of the principal commodities of commerce, especially such articles as our countrymen are more particularly interested in, I have already made several reports early within the current year, and which contained all the information I could obtain respecting them.

I have done this because data, material, and statistics relating to any year's business transactions are procurable here somewhat more easily early in the succeeding year than at a later period, and because such information, if at all valuable and useful, would seem to be the more so if furnished seasonably.

Accompanying this report are four tabular statements, showing the imports and exports of most of the principal articles of commerce into and from the Netherlands during the years 1884 and 1885, &c. They have been carefully compiled from a publication emanating from the department of finance at The Hague, but owing to the very peculiar manner in which such statistics are issued in this country, they are far from conveying as lucid and comprehensive information as I should wish to give on this important subject.

SHIPPING.

From the statement of the navigation of the port of Amsterdam, herewith inclosed, it will be seen that the number of ships and vessels arrived and departed in 1885, has decreased, whereas their tonnage shows an increase as compared with the previous year, 1884.

A noteworthy feature relating to the shipping of this port consists of the continued falling off in the arrivals and departures or in the reduced employment of sailing vessels and the constantly increasing number of steamers taking their places in the carrying trade.

Even in the lumber trade, wherein formerly sailing vessels [illegible] clusively engaged, steamers [illegible]

The very [illegible]

a number of vessels laden with lumber, grain, and rice, intended for places on the river Zaan, landed, instead of at Amsterdam, as they formerly did, as a rule.

Up to the time of the opening of the North Sea Canal the navigation of this port was limited to sailing vessels bringing products from the Dutch East and West Indies, mostly Government imports; further, to the arrivals of grain-carrying vessels from the Baltic, a few vessels that brought lumber, and a few bottoms from the United States with American products.

All this has become very much changed since Amsterdam has been connected with the sea by a canal of ample capacity; and being joined to the European railway system, its former isolated position has ceased to exist.

At the same time present aspects do not indicate that Amsterdam, as a port, will make any very great headway in the near future unless city and country will co-operate in efforts to further and greatly improve its harbor works and other important facilities and make them more equal and in some respects superior, if possible, to those of the neighboring ports of Hamburg, Bremen, and Antwerp.

A great deal has been accomplished in this direction during the past ten years, but to retain the results and benefits thereof, and for their increase, a great deal more still remains to be done.

Progress in this direction on any really extensive scale can, however, hardly be expected whilst the ocean traffic with the East India colonies remains as poor and unprofitable as it has been during the last two years or more.

Out-freights were generally very scarce, and the freight rates to and from the colonies unprecedentedly low.

Of sixteen steamers in the India trade and belonging to two companies established at Amsterdam, one company has temporarily withdrawn five, and still there is but little business, and that unpaying, for the ships kept running.

About the marine works at Ymuiden, the out-port of Amsterdam, the piers and breakwaters, the harbor and lock, it can be said that their good condition is well maintained and that they continue excellently to answer the purposes for which they were constructed. There is only this to be remarked, that the lock there is now found to be hardly long enough to admit and serve a certain class of vessels. This defect—a rather serious one—the Government contemplates remedying in the near future, as I am informed.

As to the capacity or depth of the canal I would observe that last year several ships drawing fully 23 feet of water passed through it and came up to Amsterdam without the least inconvenience or difficulty.

A comparative statement of the merchant fleet under the Dutch flag in the past twenty-five years exhibits a great decline of the same, as is shown by the following, viz:

	Sailing	Steamers.	Total tonnage.

Of these ships and vessels and during the same period of time the number which answered to the requisite conditions and were found to be fit to be permitted to transport Government products is shown by the following statement; viz:

January 1—	Sailing vessels.	Steamers.	Total tonnage.
	No.	*No.*	
1860	536	.....	280,000
1870	350	.....	215,000
1875	193	10	178,000
1880	117	13	130,109
1885	82	31	135,000

Number of ships and vessels arrived at and departed from Amsterdam, from and for United States ports, specifying their cargoes, during the years 1884 *and* 1885.

ARRIVALS.

Cargoes.	1884.	1885.	Cargoes.	1884.	1885.
General cargo	23	23	Maize	1	2
Petroleum	39	30	Ballast	1	.....
Cotton	14	4	Total	97	67
Lumber	19	8			

DEPARTURES.

Cargoes.	1884.	1885.	Cargoes.	1884.	1885.
General cargo	23	24	Empty barrels, cement, and old iron	.....	1
Empty barrels	17	9	Rmpty barrels, rags, and iron wire	1	.....
Empty barrels and seed	1	.....	Coals	4	1
Empty barrels and old iron	3	13	Old iron	1	.....
Empty barrels and iron wire	10	12	Ballast	25	10
Empty barrels and rags	1	.....	Total	86	73
Empty barrels and cement	.....	3			

Passenger traffic between Amsterdam and Java by the steamers of the Steam Navigation Company Netherland, which made thirty-five round trips in 1885.

Classification.	From Amsterdam to Java.		From Java to Amsterdam.	
	Total.	Average per voyage.	Total.	Average per voyage.
First-class passengers:				
Adults	874	25	758	22
Children under ten years	203	6	278	8
Second-class passengers:				
Adults	280	8	396	11
Children under ten years	18	1	82	2
Servants of passengers	85	2	83	2
Total first and second class passengers				
Total third-class				

There has not been any very material change in the passenger traffic to or from Java for several years last past, in so far as through passengers are concerned.

It may also be interesting, if not useful, to be stated that the average time consumed in the outward voyage was, in 1885, forty-three days and eight hours, and the shortest time in which any outward voyage was made was thirty-eight days and twenty-two hours. The average time required to make the home voyage was forty-three days and twenty-two hours, and the quickest home voyage was made in thirty-eight days and thirteen hours.

Passage rates from Amsterdam, Marseilles, and Port Said to Batavia and Padang, and vice versa, in 1886.

FIRST-CLASS PASSAGE.

For—	Amsterdam.	Marseilles.	Port Said.
	Florins.	*Florins.*	*Florins.*
Adults or children above ten years of age	800	700	600
Children above two and under ten years of age	400	350	300
Two children under two years of age, together occupying one berth	400	350	300

One child under two years of age taken free, but no berth will be allotted. Any passenger or passengers desiring the exclusive use of a cabin will be charged, if he or they can be accommodated, at the rate of 250 florins for each unoccupied berth in such cabin, in addition to the regular fare as above. Married couples, with or without children, cannot be allowed to occupy part of a cabin excepting under the conditions last above named.

No modifications of the foregoing rates can be entertained, except in the case of families of seven or more persons, principally adults.

The port of embarkation must be distinctly stated at the time the passage is engaged.

A reduction of 10 per cent. on outward and homeward passage moneys will be made to passengers returning to Java, who have arrived from Java by one of the company's steamers, provided their embarkation takes place within twelve months from the date of their arrival, and the reduction is claimed when the return passage is engaged, and that they have had no reduction whatever on the outward voyage.

SECOND-CLASS PASSAGE.

For—	To Batavia from—			From Batavia to—		
	Amsterdam.	Marseilles.	Port Said.	Amsterdam.	Marseilles.	Port Said.
	Florins.	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*
Adults or children above ten years of age	400	350	300	450	390	330
Children above two and under ten years of age	200	175	150	225	195	165
Two children under two years of age, together occupying one berth	200	175	150	225	195	165

one child under two years of age taken free, but no berth will be allotted.

pany's option, they are calculated either by the cubic-meter measurement or by the ton weight, as follows, viz:

Class.	Rate.	Class.	Rate.
	Florins.		*Florins.*
Class 0	13	Class 3	20
Class 1	15	Class 4	23
Class 2	17	Class 5	28

Homeward freights.—The range of freights per steamer from Batavia, Samarang, and Soerabaya to Holland was as follows in 1885:

Articles.	Rate.	
	Florins.	
Coffee, per 900 kilograms	32½ to 35	
Sugar, per 1,000 kilograms	20	22½
Tin, per 1,000 kilograms		15
Indigo, per 650 kilograms	45	60
Spices, per 650 to 750 kilograms	40	65
Tobacco, per 400 kilograms	25	30
Rice, per 1,000 kilograms	20	25

These rates may serve as some sort of basis for merchants, they being, of course, subject to modification.

OTHER FREIGHT RATES.

The Royal Netherlands Steam Navigation Company kindly handed me a statement giving the rates of freight at which they carried small and large quantities but not full cargoes of grain, &c., from Baltic ports to this port and Rotterdam in 1885, which is as follows, viz:

From Dantzic.—Wheat, per 2,400 kilograms, 10 to 13 florins; sugar, per ton, 8*s.* 6*d.* to 10*s.*; deals, per load or 50 cubic feet, 8*s.* to 9*s.*

From Königsberg.—Wheat, per 2,400 kilograms, 7 to 14 florins; hemp, per ton, 12*s.* 6*d.* to 17*s.* 6*d.*; seeds, per 2,400 kilograms, 7½ to 10 florins.

From Libau.—Oats, per 320 English pounds, 1*s.* 3*d.* to 1*s.* 6*d.*

From Revel.—Wheat, per quarter, 1*s.* 3*d.* to 2*s.* 3*d.*

From St. Petersburg.—Wheat, per 1,000 kilograms, 3¼ to 4½ florins; groats, per 1,000 kilograms, 3.67½ to 4.20 florins.

SHIP-BUILDING.

The position of the Netherlands as a maritime nation and the country's situation and facilities for ship-building may, to a goodly extent, be inferred from the figures given in the following tabular statements compiled from a publication prepared and issued by the Society for Statistics of the Netherlands:

State of the commercial marine of the Netherlands, giving the number of iron, composite, and wooden sailing and steam vessels in the foreign trade each year from 1877 to 1884, inclusive, and their registered measurement.

Years.	Sailing vessels.		Steamers.		Total sea-going vessels.	
	No.	*Cu. meters.*	*No.*	*Cu. meters.*	*No.*	*Cu. meters*
December 31—						
1877	1,168	871,000				
1878						
1879						

Average registered measurement of sailing vessels and steamships in the mercantile marine of the Netherlands each year from 1877 to 1884, inclusive.

Years.	Sailing vessels.	Steamers.	All sea-going vessels.
	Cu. meters.	*Cu. meters.*	*Cu. meters.*
1877	754	2,064	829
1878	771	2,131	861
1879	783	2,184	878
1880	814	2,367	933
1881	822	2,620	981
1882	820	2,806	1,024
1883	838	3,000	1,098
1884	833	2,911	1,118

Number of vessels (sail and steam) and their tonnage or measurement which have been brought under the flag of the Netherlands each year from 1874 to 1884, inclusive.

Years.	Sailing vessels.						Steamers.					
	Home-built.		Foreign-built.		Total.		Home-built.		Foreign-built.		Total.	
	No.	*Cu. meters.*	*No.*	*Cu. meters.*	*No.*	*Cu. meters.*	*No*	*Cu. meters.*	*No.*	*Cu. meters.*	*No.*	*Cu. meters.*
1874	54	24,000	18	17,000	72	41,000	1	1,000	9	31,000	10	32,000
1875	27	29,000	24	28,000	51	57,000	1	1,000	6	22,000	7	23,000
1876	38	38,000	22	20,000	60	58,000	...	.....	3	12,000	3	12,000
1877	21	17,000	20	14,000	41	31,000	1	2,000	4	13,000	5	15,000
1878	21	16,000	25	33,000	46	49,000	...	.....	4	14,000	4	14,000
1879	24	20,000	11	15,000	35	35,000	1	1,000	4	15,000	5	16,900
1880	13	5,000	15	14,000	38	19,000	1	2,000	5	20,000	6	22,000
1881	6	4,000	11	11,000	17	15,000	3	1,000	7	37,000	10	48,000
1882	16	3,000	23	20,000	39	23,000	2	9,000	8	35,000	10	44,000
1883	20	12,000	13	13,000	33	25,000	3	26,000	8	27,000	11	53,000
1884	22	11,000	11	8,000	33	19,000	7	23,000	2	7,000	15	30,000
							11				13	

Number and nationality of seamen engaged in home and foreign ports for service on board of Dutch sail and steam vessels in the mercantile fleet from 1875 to 1884 each year.

Years.	Netherlanders.		Foreigners.		Total.	Years.	Netherlanders.		Foreigners.		Total.
	No.	*Pr. ct.*	*No.*	*Pr. ct.*	*No.*		*No.*	*Pr. ct.*	*No.*	*Pr. ct.*	*No.*
1875	12,679	83.7	2,470	16.3	15,149	1880	11,492	76.1	3,602	23.9	15,094
1876	12,573	81.1	2,933	18.9	15,506	1881	11,480	76.5	3,528	23.5	15,008
1877	11,288	78.2	3,156	21.8	14,444	1882	12,615	77.7	3,613	22.3	16,228
1878	11,613	80.7	2,793	19.3	14,406	1883	12,644	79.9	3,174	20.1	15,818
1879	10,499	77.2	3,105	22.8	13,604	1884	12,223	81.1	2,856	18.9	15,076

From the foregoing it will be observed that the ship-building of this country is not in a very flourishing condition; that but few sea-going vessels for the foreign trade are being constructed in its ship-yards, and none at all of really large dimensions.

As Holland does not produce either iron or coal, and hardly any timber, it cannot be said to possess facilities of the highest order for shipbuilding purposes, whilst in many other respects the country seems extremely favorably situated and in every way amply prepared to build ships of any class, size, and material for the ocean traffic as well as for

herring and other fish-

considerable, and I regret that there are no statistics to be had relating thereto.

The above tabular statements do not cover the year 1885, but I am informed that as regards ship-building at Amsterdam, and in all Holland, there has been but little difference in the amount of tonnage finished during that year as compared to 1884, and certainly no improvement in the industry in question.

IMPORTS OF AMERICAN MANUFACTURES.

Knowing that interesting and useful information and suggestions intended and calculated to foster and promote the export trade in the products of our industries are always welcome and appreciated, I never fail to improve to the fullest extent such facilities as are at hand in gaining information bearing thereon and connected therewith, and report the same. But having frequently and at short intervals written upon the subject during the past few years, I find that but little of importance has occurred since the date of my last report upon the matter that could be stated now.

The observations relating thereto and contained in my report of the 3d of September, 1885, and as covering the year 1884, apply about equally as well to the year last past, 1885, and whilst I should not like to repeat them, I have no hesitation to refer to them.

The imports of and trade in articles the manufacture of the United States were last year, and are up to now apparently, or so far as I can judge, very much the same as they were during the preceding years of 1883 and 1884.

The demand keeps up and the business is being maintained in a very large number of different articles, but in only comparatively few of them is it of much importance.

Whilst from one or another cause the trade in certain articles stopped or declined, it increased in others, and new articles have been introduced, and found a market.

Mr. Fred. K. Stieltzes, the intelligent snd energetic representative here of a number of American manufacturers, states to me that he considers that at this time there are good opportunities for the successful introduction of American machinery for use in different industrial establishments, and also for engineering implements and supplies.

Any person or firm interested in this information and desirous to obtain correct and reliable data may apply for them to the above-named gentleman. Besides I am myself ever ready to procure and furnish information to any and all manufacturers and exporters, &c., who may wish to be posted as to the chances or prospects for finding in this country a market for their products or wares.

To give in a report like this particular, accurate, and really useful information concerning many classes of goods is hardly practicable, whereas it is comparatively much less difficult to obtain and give information of such a character as respects one or but a few articles at a time.

It has just been brought to my knowledge that Worthington steam-pumps, first brought here only a few months ago, are now being worked at various water-works and in several

The American Manufacturing Company, Waynesborough, Pa., has recently furnished an evaporator for one of the largest fruit-preserving establishment here.

The Troy Laundry Machinery Company has also an agency here, and their washing-machines compete successfully against those of English and French manufacture.

The Gardner compensation governors, for regulating the speed of steam-engines, are highly favored by the leading engineers of this country, and getting to be largely in use.

Tarr & Wonson's copper paint, for the bottoms of vessels, and Prince's metallic paint for painting iron-work, are finding ready sale.

The imports of lubricating oil are increasing, but chiefly for re-export to Germany.

Remington type-writers are growing in favor and their sale extending.

The trade in school furniture and school slates is also well maintained.

The agent of the Singer sewing-machines writes to me that the general imports and sales of sewing machines fell off considerably during the year 1885 as compared to 1884 and previous years, but that his own business experienced no diminution whatever, and therefore he considers himself justified in concluding that the competition, especially from Germany, has lost ground and is weakening.

EXPORTS TO THE UNITED STATES.

The herewith-transmitted tabular statements of the classified exports from this consular district to the United States during the year ended June 30, 1886, show that they were unusually large, exceeding those of any twelve-month on record, being in excess of $2,464,654.31 over the exports in the fiscal year ended June 30, 1885.

This great increase is principally accounted for by the very much larger shipments of Sumatra tobacco which took place during the year 1885–'86, and more particularly during the September and December quarters of 1885, as compared with those of same period in 1884.

I have already reported and would here again state that the exports of this article to the United States will be very much less during the current calendar or fiscal year.

Present indications, however, are that the shipments will be quite extensive again, and that the high prices and certain defects in quality do not deter American purchasers in sending large supplies to our markets.

It would also seem to deserve to be remarked that the increase in the exports is to a considerable extent also owing to the more important shipments of coffee and diamonds, the declared invoice value of the coffee exports in 1884–'85 having been only $408,732.50, whereas in 1885–'86 it was $867,085.18, an increase of over 100 per cent.; and the invoices for diamonds certified to at this consulate and shipped from here to the United States amounted during the year ended June 30, 1885, to but $211,634.84, whilst during the year ended June 30, 1886, [illegible] to $974,355.37.

[illegible] largely diminished.

General imports into the Netherlands during the years ending December 31, 1884 and 1885.

Articles.	Standard.	1885.	1884.	Whence imported.
	1,000 kilograms	32,654	33,823	America, Belgium, Great Britain, Prussia, Russia, all others.
extract	do	4,801	4,841	Belgium, Prussia, all others.
	do	15,464	15,532	Belgium, Great Britain, Prussia, all others.
	do	7,864	2,784	Belgium, Italy, Prussia, all others.
	do	6,287	5,100	Belgium, Prussia, all others.
ufactured	do	4,736,710	4,153,946	Belgium, Great Britain, Prussia, all others.
and porcelain	do	112,436	113,028	Belgium, Brazil, Curaçoa, France, Great Britain, Dutch East Indies, Surinam.
ffs, and chemicals	do	63,124	63,690	America, British East Indies, France, Great Britain, Prussia, all others.
	do	178,133	215,012	Belgium, France, Great Britain, Italy, Dutch East Indies, Prussia, Peru.
	do	204,607	199,874	Belgium, France, Great Britain, Italy, Dutch East Indies, Peru, Prussia.
	do	40,169	41,143	Belgium, France, Great Britain, Prussia, all others.
	do	8,503	8,701	Great Britain, Norway, all others.
	do	5,389	4,802	Great Britain, Hamburg, Norway, all others
	do	22,618	16,540	Belgium, Great Britain, Prussia, Russia, all others.
	do	60,671	58,145	America, Belgium, Bremen, Great Britain, Hamburg, Prussia.
	do	24,835	19,886	Belgium, France, Italy, Portugal, Prussia, Spain, all others.
ware	do	34,218	35,080	America, France, Great Britain, Italy, Austria, Portugal, Spain, Turkey.
	do	32,455	32,582	Belgium, Great Britain, Hamburg, Prussia, all others.
	do	611,148	763,866	Belgium, Danubian principalities, Hamburg, Prussia, Russia.
	do	439,692	414,851	Belgium, France, Prussia, Russia, Turkey, all others.
	do	192,020	170,700	Belgium, Denmark, Prussia, Russia, Sweden, all others.
	do	13,741	7,466	France, Hamburg, Prussia, all others.
	do	116,716	131,525	Belgium, Bremen, British East Indies, Great Britain, Dutch East Indies, Hamburg.
leather	do	311,003	312,540	Belgium, France, Great Britain, Prussia, all others.
	do	32,348	32,822	Belgium, France, Great Britain, Dutch East Indies, Prussia.
	do	59,484	66,100	Belgium, Chili, Great Britain, Peru, all others.
ctured and manufactured	do	6,020	3,752	America, Belgium, Great Britain, Hamburg, Prussia, Russia.
	do	613,868	619,186	Belgium, Great Britain, Prussia, Sweden, all others.
	do	21,620	20,429	Belgium, France, Great Britain, Prussia, all others.
	do	236,115	213,796	America, Belgium, France, Great Britain, Italy, Portugal, Prussia, Spain, Africa, West Coast.
	do	3,514	4,339	British and Dutch East Indies, all others.
nanufactures thereof	do	27,253	26,185	Belgium, Prussia, all others.
	do	6,657	3,457	Belgium, Great Britain, Prussia, all others.
	do	75,839	72,073	Great Britain, Portugal, Prussia, all others.
	do	193,875	193,257	America, Great Britain, Hamburg, Prussia, Russia.
, and lard	do	14,486	9,879	Cuba, Great Britain, Surinam, all others.
	do	59,054	59,663	America, Belgium, Great Britain, Russia, all others.
	do	3,987	4,592	Great Britain, Hamburg, Dutch East Indies, all others.
	do	15,789	17,422	Belgium, Bremen, France, Great Britain, Hamburg, Dutch East Indies, Surinam, Prussia, &c.

General imports into the Netherlands during the years ending December 31, 1884 and 1885—Continued.

	Standard.	1885.	1884.	Whence imported.
and other implements	1,000 kilograms	38,352	38,934	Belgium, France, Great Britain, Prussia, all others.
	do	765,506	912,008	Belgium, Great Britain, Italy, Prussia, all others.
	do	128,179	133,252	Belgium, East Indies, Prussia, France, Great Britain, Hamburg, Surinam, &c.
	do	23,395	21,865	Belgium, France, Prussia, all others.
	do	10,750	10,853	Belgium, Hamburg, Russia, Sweden, all others.
	do	5,020	4,279	China, Great Britain, Dutch East Indies, all others.
	do	45,459	40,149	America, Belgium, Bremen, France, Great Britain, Hamburg, East Indies, Prussia, &c.
	do	27,367	26,840	Belgium, France, Great Britain, Hamburg, Prussia, Spain, all others.
	do	8,983	9,939	Belgium, France, Prussia, all others.
	do	707,925	801,528	Belgium, Hamburg, Norway, Prussia, Russia, Sweden, all others.
	do	11,847	12,697	America, Cuba, France, Great Britain, Hamburg, all others.
ber	do	23,958	20,948	America, Belgium, Great Britain, France, Curaçao, Hayti, Dutch East Indies.
	do	30,117	33,508	Belgium, Great Britain, Prussia, Rio de la Plata, all others.
	do	43,265	43,691	Belgium, Great Britain, Prussia, all others.
	do			
	do			

Imports for consumption into the Netherlands during the years ending December 31, 1884 and 1885.

Articles.	Standard.	1885.	1884.	Whence imported.
nd	1,000 kilograms	30,380	28,587	America, Belgium, Great Britain, Prussia, Russia, all others.
	do	3,560	3,395	Belgium, Prussia, all others.
	1,000 liters	3,497	3,645	Belgium, Great Britain, Prussia, all others.
	1,000 kilograms	2,057	917	Belgium, Italy, Prussia, all others.
	do	1,456	954	Belgium, France, all others.
tearine	do	1,822	1,561	Belgium, Prussia, all others.
	do	2,983	3,331	Belgium, France, Great Britain, Surinam, all others.
ed	1,000 guilders	14	24	Belgium, Prussia, all others.
vs' hair	do	590	564	Belgium, Great Britain, Prussia, all others.
	do	637	723	Do.
l silver watches	do	7,473	9,354	Belgium, France, Great Britain, Prussia, all others.
	do	582	690	Prussia, all others.
	1,000 kilograms	3,498,659	3,403,583	Belgium, Great Britain, Prussia, all others.
	do	102,503	104,269	Belgium, Brazil, Curaçoa, France, Great Britain, Dutch East Indies, Surinam, Hamburg.
latted	do	8,006	5,887	Belgium, France, Great Britain, Norway, Prussia, all others.
	do	1,236	1,657	Belgium, Great Britain, all others.
actured	do	562	672	Belgium, France, Great Britain, Prussia, all others.
	do	38,846	43,165	British East Indies, France, Great Britain, Prussia, all others.
	1,000 guilders	454	539	Belgium, France, Great Britain, Prussia, all others.
	do	200	195	Do.
	do	368	321	Great Britain, Prussia, all others.
	do	3,462	4,182	France, Great Britain, Italy, Dutch East Indies, Austria, Prussia, Russia.
	1,000 kilograms	2,408	2,336	France, Great Britain, all others.
	do	687	1,562	Great Britain, all others.
	do	55	57	Do.
	do	5,072	4,524	America, Great Britain, Hamburg, Norway, all others.
	1,000 kilograms	631	1,171	Great Britain, all others.
	do	2,953	2,148	Norway, all others.
ed, not hackled or dressed	do	773	837	Belgium, Prussia, all others.
, and dressed	do	630	447	Do.
	1,000 guilders	1,117	1,204	Belgium, France, Italy, Portugal, Prussia, Spain, all others.
	do	566	643	Belgium, Prussia, all others.
	do	311	352	Do.
	do	153	137	Do.
	do	575	602	Belgium, Great Britain, Prussia, all others.
	do	2,605	3,880	Belgium, Great Britain, all others.

ts for consumption into the Netherlands during the years ending December 31, 1884 and 1885—Continued.

	Standard.	1885.	1884.	Whence imported.
		66	84	Belgium, Prussia, all others.
	1,000 guilders	318	382	Do.
	do	6,864	7,454	Belgium, Hamburg, Prussia, all others.
	1,000 hectoliters	4,823	4,402	Belgium, Prussia, Russia, Turkey, all others.
	do	2,301	2,163	Belgium, Denmark, Prussia, Russia, Sweden, all others.
	do	190	68	France, Hamburg, Prussia, all others.
	do	27,587	33,108	America, Belgium, Bremen, France, Great Britain, Hamburg, Prussia.
	1,000 kilograms	21,682	18,188	Belgium, Prussia, all others.
	do	16,327	13,136	Austria, Prussia, Russia, all others.
	do	7	1	Belgium, all others.
	do	8,907	9,088	Belgium, France, Great Britain, Dutch East Indies, Prussia, all others.
	do	4,994	5,082	Belgium, France, Great Britain, Rio de la Plate, all others.
	do	6,582	6,731	Belgium, Great Britain, Prussia, all others.
	do	160	208	Great Britain, Prussia, all others.
	1,000 guilders	987	1,119	America, Belgium, Bremen, Cuba, France, Great Britain, all others.
	do	1,870	1,667	Great Britain, Dutch East Indies, all others.
	1,000 kilograms	463	487	Belgium, France, Prussia, all others.
	do			
	1,000 guilders	204,943	240,588	Great Britain, Prussia, all others.
		104,340	120,030	Belgium, Great Britain, Prussia, Sweden, all others.
	1,000 kilograms	65,595	91,633	Belgium, Great Britain, Prussia, all others.
	do	34,732	29,647	Do.
	do	2,675	2,862	Do.
sheet iron	do	210	374	Great Britain, all others.
	1,000 guilders	15,392	18,511	Belgium, France, Prussia, all others.
	do	9,813	11,701	Belgium, Great Britain, Prussia. all others.
	1,000 kilograms			
s	do	9	98	Italy, all others.
	do	130	16,345	Belgium, Prussia, all others.
	do	19,772		Belgium, Chili, Great Britain, Peru, all others.
	do		599	Belgium, France, Great Britain, Prussia, all others.
cin	do	452	3,274	Belgium, Great Britain, Prussia, all others.
	do	2,714	6,510	Do.
	1,000 guilders	5,734	881	Do.
	do	811	11,443	Belgium, Prussia, all others.
bleached	do	8,523	2,157	Belgium, Great Britain, Prussia, all others.
r printed	do	2,077	5,554	Do.
bleached	1,000 rolls	5,060	35	Great Britain, Prussia, all others.
kskins	1,000 guilders	30	96	Belgium, Great Britain, Prussia, all others.
not stipulated	do	56	1,275	Do.
	do	1,330		
	do			
en clothes	do			

lace, and tulle	do	353	366	Do.
enterie	do	592	631	Do.
bons and bands	do	169	169	Do.
and linen ribbons and bands	do	150	137	Do.
any	do	3,687	3,702	Do.
stic, bark, iron wire	do	255	291	Do.
sorts, not stipulated, fresh or salted	1,000 kilograms	179	178	America, Belgium, Great Britain, Prussia, Russia, all others
d pork flesh:				
d		2,700	1,251	America, Belgium, Great Britain, all others.
l or smoked	do	187	147	Belgium, Great Britain, Prussia, all others.
	do	50	46	Belgium, Prussia, all others.
	do	4,259	4,459	Belgium, France, Great Britain, Prussia, all others.
ds	1,000 guilders	2,604	2,804	Belgium, Great Britain, Prussia, all others.
	1,000 kilograms			
live oils	do	584	1,196	Belgium, France, Great Britain, Italy, Spain, all others.
l round seeds	do	6,596	7,913	France, Great Britain, Prussia, all others.
petroleum	do	77,235	74,784	America, Belgium, Bremen, Great Britain, Hamburg, all others.
	do	3,367	4,082	East Indies, British and Dutch.
	do	13,795	13,206	Great Britain, Portugal, West coast of Africa.
acking paper, &c	1,000 guilders	2,074	2,136	Belgium, Prussia, all others.
	do	438	462	Do.
	1,000 kilograms	236	229	Great Britain, Dutch East Indies, all others.
	do	2,643	749	Belgium, France, Prussia, all others.
shells	do	1,724	1,926	Great Britain, Austria, Spain, Turkey, all others.
	do	103,594	124,250	Belgium, Bremen, British East Indies, Great Britain, Dutch East Indies, Hamburg.
	do	23,659	34,288	Chili, Peru, Prussia, all others.
	do	1,787	2,650	Great Britain, Hamburg, Prussia, all others.
	do	65,264	66,514	Great Britain, Portugal, Prussia, all others.
	1,000 hectoliters	617	454	Denmark, Hamburg, Prussia, all others.
nmanufactured	do	1,707	1,493	Great Britain, Prussia, Russia, all others.
	1,000 kilograms	21	9	Great Britain, Prussia, all others.
	do	55,490	56,192	America, Belgium, Bremen, France, Great Britain, all others.
and cassia vera	1,000 guilders	29	27	Hamburg, Dutch East Indies, all others.
	do	15	15	Dutch East Indies, all others.
	do	33	28	Great Britain, Dutch East Indies, all others.
	do	132	175	Dutch East Indies, all others.
	do	26	33	Great Britain, Dutch East Indies, all others.
	1,000 kilograms	22,398	18,308	Belgium, Hamburg, Prussia, all others.
, smelling water	do	11,976	11,466	Do.
	1,000 hectoliters	22,528	23,792	Belgium, Bremen, France, Great Britain, Hamburg, Dutch East Indies, Surinam, Prussia.
e	1,000 kilograms	110	153	Belgium, France, all others.
	do	13,116	9,069	Great Britain, Prussia, all others.
ufactured	1,000 guilders	882	1,103	Belgium, Italy, Prussia, all others.
	do	73,459	75,539	Belgium, Great Britain, Prussia, all others.

ports for consumption into the Netherlands during the years ending December 31, 1884 and 1885—Continued.

es.	Standard.	1885.	1884.	Whence imported.
	1,000 kilograms	110,995	122,763	Belgium, France, Great Britain, Hamburg, Dutch East Indies, Surinam, Prussia.
	do	946	1,302	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
	do	289	331	Belgium, Prussia, all others.
	do	3,389	2,989	Great Britain, all others.
	do	1,833	995	Cuba, Great Britain, Surinam, all others.
	1,000 guilders	7,973	10,627	Belgium, France, Great Britain, Prussia, all others.
ments	1,000 kilograms	6,620	7,919	Belgium, Hamburg, Russia, Sweden, all others.
	do	2,169	1,770	China, Great Britain, Hamburg, Dutch Indies, all others.
	do	9,186	9,280	Great Britain, Dutch East Indies, all others.
	do	8,067	9,408	America, Belgium, Brazil, Bremen, Great Britain, Hamburg, Prussia
	do	1,232	2,577	Belgium, France, Great Britain, Prussia, all others.
	do	2,521	4,133	Great Britain, Dutch East Indies, all others.
	do	1,538	5,055	Belgium, Bremen, Great Britain, Hamburg, Prussia.
	do	48	47	Belgium, Cuba, Great Britain, Prussia, all others.
	do	537	558	France, Great Britain, all others.
e wax	1,000 hectoliters	102,875	113,633	Belgium, France, Great Britain, Hamburg, Prussia, Spain.
	do	7,227	7,742	Belgium, France, Prussia, all others.
imber:	Tons	196,041	245,048	Hamburg, Norway, Prussia, Russia, Sweden, all others.
	do	147,662	165,547	Norway, Prussia, Russia, Sweden, all others.
	1,000 guilders	4,999	5,078	Belgium, Norway, Prussia, Sweden, all others.
	do	4,067	4,247	Belgium, Prussia, Russia, all others.
	do	876	1,968	America, Cuba, France, Great Britain, Hamburg, all others.
awed	1,000 kilograms	18,827	16,623	America, Belgium, Curaçoa, France, Great Britain, Hayti, Dutch East Indies, Hamburg.
	do	124	126	Curaçoa, Great Britain, Dutch East Indies, all others.
	do	47	417	America, Belgium Curaçoa, Great Britain, Hayti, all others.
d Japan	do	5,047	5,802	Belgium, Great Britain, Prussia, Rio de la Plata, all others.
	do	192	151	Do.
	do	10,537	11,527	Do.
	do	1,250	991	Belgium, Great Britain, Prussia, all others.
	do	1,637	1,701	Do.
ds of wool and of woolen yarns	do			
	do	366	389	Belgium, Great Britain, all others.
weaving:	do	96	1	Do.
	do			

r weaving:				
gh	do	2,339	1,808	Do.
ched	do	819	955	Do.
d flax for sewing	do	317	378	Do.
wined	do	19,547	22,186	Belgium, Great Britain, Prussia, all others.
ed	do	1		Great Britain, all others.
ed, not bleached	do	3,346	2,972	Do.
ed, colored or not	do	1,348	1,221	Great Britain, Prussia, all others.
indles	1,000 guilders	162	193	Do.
, not colored	do	386	587	Do.
not colored	1,000 kilograms	2,955	2,589	Do.
d, colored or not	do	2,589	3,285	Do.
	1,000 kilograms			

General exports from the Netherlands during the years ending December 31, 1884 *and* 1885.

Articles.	Standard.	1885.	1884.	Whither exported.
	1,000 kilograms	13,696	15,123	Belgium, Prussia, Great Britain, all others.
tract	do	5,190	4,251	Denmark, Great Britain, Hamburg, all others.
	do	17,042	16,412	Belgium, British East Indies, France, Dutch East Indies, Surinam.
	do	63,617	57,644	Belgium, Great Britain, Dutch East Indies, Surinam, all others.
	do	3,647	2,410	Great Britain, Prussia, all others.
	do	32,504	29,453	Belgium, France, Great Britain, Hamburg, Dutch Indies, Prussia, Russia.
red	do	863,211	883,402	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
rcelain	do	77,667	72,813	America, Belgium, Denmark, France, Hamburg, Prussia, Sweden.
and chemicals	do	45,913	50,954	Belgium, France, Great Britain, Prussia, Sweden, all others.
	do	51,088	56,870	Belgium, France, Great Britain, Dutch East Indies, Prussia.
	do	124,060	145,793	Belgium, Great Britain, Hamburg, Dutch East Indies, Prussia, all others.
		35,390	37,814	Celebes (British India, possessions in the Strait of Malacca), Great Britain, Dutch East Indies, Prussia, Surinam (English East India possessions).
	do	66,208	55,285	Belgium, Prussia, all others.
	do	4,479	3,823	Belgium, France, Great Britain, Prussia, all others.
	do	28,119	24,122	Belgium, Great Britain, Prussia, all others.
	do	31,057	22,052	Belgium, Great Britain, Dutch East Indies, Prussia, all others
	do	39,614	28,247	Belgium, Great Britain, Hamburg, Prussia, all others.
	do	18,608	15,393	Belgium, Denmark, France, Prussia, all others.
	do	22,729	22,749	Belgium, Great Britain, Dutch East Indies, all others.
	do	354,424	540,188	Belgium, Prussia, all others.
	do	238,932	268,202	Do.
	do	109,736	94,752	Belgium, Great Britain, all others.
	do	105,060	133,869	Do.
	do	46,675	42,022	Belgium, Great Britain, Hamburg, Prussia, Surinam, all others.

General exports from the Netherlands during the years ending December 31, 1884 and 1885—Continued.

s,	Standard.	1885.	1884.	Whither exported.
	1,000 kilograms	208,714	293,924	France, Great Britain, Italy, Dutch East Indies, Norway, Prussia, Russia.
	do	28,344	29,604	Belgium, France, Great Britain, Dutch East Indies, Prussia.
	do	10,547	8,680	Belgium, Great Britain, Dutch East Indies, Prussia.
	do	18,002	17,457	Belgium, France, Great Britain, Dutch East Indies, Prussia, all others.
nd manufactured	do	530,811	408,862	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
	do	142,398	128,025	Belgium, Dutch East Indies, Prussia, all others.
	do	2,965	2,928	Belgium, Great Britain, Dutch East Indies, Norway, Russia, Prussia.
	do	33,181	33,386	Belgium, Great Britain, Dutch East Indies, Prussia, Surinam.
	do	23,092	18,185	Belgium, France, Great Britain, Hamburg, Prussia, all others.
	do	15,223	15,183	Belgium, France, Great Britain, Hamburg, Dutch East Indies, Prussia.
tures thereof	do	87,183	100,565	Belgium, Great Britain, Prussia, all others.
	do	24,449	19,623	Belgium, Hamburg, Prussia, all others.
	do	15,089	12,720	America, Prussia, all others.
	do	3,422	2,964	America, Great Britain, Prussia, all others.
	do	38,339	44,947	Prussia, Dutch East Indies, Surinam, Sweden.
lard	do		21,869	America, Belgium, Denmark, France, Great Britain, Hamburg, Italy, Belgium, Great Britain, Dutch East Indies, Prussia, all others.
	do	23,332	109,399	Belgium, Hamburg, Dutch East Indies, Prussia, all others.
ural and other imple-	do	124,810		
	do		39,136	Belgium, France, Great Britain, Hamburg, Prussia, Russia, Sweden.
	do	39,158	113,764	Belgium, Great Britain, Italy, Norway, Austria, Prussia, Surinam, Sweden.
	do	102,291	16,269	Belgium, British and Dutch East Indies, Prussia, all others.
	do	18,069	2,207	Belgium, Great Britain, Hamburg, Prussia, all others.
	do	2,730	24,484	Belgium, Denmark, Prussia, Great Britain, all others.
	do	29,266	1,986	Great Britain, Dutch East Indies, Surinam, all others.
	do	1,672		
	do		13,693	America, Belgium, France, Great Britain, Hamburg, Dutch East Indies, Prussia.
	do	14,610	9,239	America, France, Great Britain, Hamburg, Japan, Dutch East Indies, Prussia.
	do	8,265		
	do		166,202	Belgium, Prussia, all others.
	do	198,054	5,970	Do.
	do	7,013	18,545	Do.
er	do	22,325	29,881	Belgium, Great Britain, Prussia, all others.
l	do	25,712	24,649	Great Britain, Dutch East Indies, Prussia, all others.
	do	26,084		

Exports, free from export duties, from the Netherlands, during the years ending December 31, 1884 and 1885.

Articles.	Standard.	1885.	1884.	Whither exported.
oxen, cows	Head	60, 413	67, 607	Belgium, Great Britain, Prussia, all others.
	do	70 688	64, 563	Do,
	do	111, 946	95, 966	Do.
&c	do	248, 255	207, 821	Belgium, Great Britain, all others.
l	1, 000 kilos	153	123	Belgium, Great Britain, all others.
	do	8, 697	8, 911	Belgium, Great Britain, Prussia, all others.
	1, 000 liters	2, 156	1, 898	Denmark, Great Britain, Hamburg, all others.
	do	4, 929	4, 473	Belgium, France, Dutch East Indies, Surinam, all others.
		63, 374	57, 427	Belgium, Great Britain, Dutch East Indies, Surinam, all others.
	do	1, 756	961	Prussia, all others.
l stearine	do	429	89	Do.
l	do	7, 244	9, 789	Belgium, France, Great Britain, Hamburg, all others.
ow's hair	do	69	42	Great Britain, Prussia, all others.
	do	48	54	Do.
	1, 000 kilos	34, 445	29, 395	Belgium, France, Great Britain, Hamburg, Dutch East Indies, Prussia, Russia, Sweden.
ured	1, 000 guilders	4, 579	5, 418	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
	1, 000 kilos	3, 757	2, 312	America, Denmark, Great Britain, Norway, Russia, Sweden, all others.
	do	136, 532	141, 543	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
	do	70, 637	66, 296	America, Belgium, Denmark, France, Hamburg, Prussia, Sweden.
ted	do	6, 548	4, 308	Belgium, France, Great Britain, Prussia, all others.
tured	do	900	755	Belgium, Dutch East Indies, Prussia, all others.
	do	22, 024	29, 667	Belgium, France, Great Britain, Prussia, all others.
	do	133	782	Belgium, France, Great Britain, Dutch East Indies, Prussia, all others.
	do	6, 431	5, 802	Belgium, Great Britain, Dutch East Indies, Prussia, Russia, all others.
	1, 000 guilders	2, 401	2, 200	America, Belgium, France, Great Britain, Hamburg, Prussia.
	1, 000 kilos	2, 390	1, 921	Prussia, all others.
	do	505	1, 139	Do.
	do	4, 163	4, 833	Belgium, Prussia, all others.
	do	916	1, 351	Belgium, Great Britain, all others.
	do	35, 934	28, 777	America, Belgium, Hamburg, Prussia, Russia, all others.
	do	323	241	Belgium, Great Britain, Prussia, all others.
	do	3, 741	3, 321	Belgium, Prussia, all others.
	do	1, 512	1, 212	Belgium, France, Prussia, all others.
	do	2, 809	972	Belgium, Great Britain, Prussia, all others.
	do	4. 178	3. 546	Belgium, France, Great Britain, Prussia, all others.

ree from export duties, from the Netherlands, during the years ending December 31, 1884 and 1885—Continued.

	Standard.	1885.	1884.	Whither exported.
ckled or dressed	1,000 kilos	8,984	7,558	Belgium, Great Britain, Prussia, all others.
sed	do	6,616	5,848	America, Belgium, Great Britain, Prussia, all others.
	do	289	49	Belgium, all others.
	do	22,698	14,333	Belgium, Hamburg, Great Britain, Prussia, all others.
	do	31	355	British East Indies, Great Britain, Dutch East Indies, Prussia, all others.
	do	17	9	America, Great Britain, all others.
	do	2,762	2,983	Belgium, Great Britain, Hamburg, Dutch East Indies, Prussia, all others.
	do	973	1,005	Belgium, Great Britain, Dutch East Indies, Surinam, all others.
	do	603	729	France, Great Britain, Prussia, all others.
	do	257,367	360,189	Belgium, Prussia, all others.
	do	143,294	169,747	Do.
	do	68,368	62,812	Do.
	do	89,834	109,158	Belgium, Great Britain, all others.
	do	7,290	3,887	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
	do	15,156	13,382	Prussia, all others.
	do	8,758	7,893	Belgium, Great Britain, Prussia, all others.
	do	7,166	5,759	Belgium, France, Great Britain, Hamburg, Prussia, all others.
	do	5,875	6,851	Belgium, France, Great Britain, Prussia, all others.
	do	6	4	Belgium, Prussia, all others.
	do	1,556	1,184	Prussia, Russia, all others.
	do	24	28	Great Britain, Dutch East Indies, Prussia, all others.
	do	186,169	221,301	Belgium, Great Britain, Prussia, all others.
	do	29,966	38,834	Belgium, Dutch East India, Prussia, all others.
	do	58,860	70,973	America, Belgium, Great Britain, Italy, Dutch East Indies, Prussia, Russia.
eet iron)	do	2,663	2,922	Belgium, Dutch East Indies, Prussia, all others.
	do	283	639	Dutch East Indies, all others.
	do	15,195	16,424	Belgium, British and Dutch East Indies, Prussia, Surinam, all others.
and chains)	do	6,636	6,036	America, Belgium, Great Britain, Dutch East Indies, Russia.
	do	23	----------	Great Britain, Prussia, all others.
or manufactured	do	1,621	1,416	America, Belgium, Great Britain, Hamburg, Prussia, Russia.
	do	27	64	America, Great Britain, Prussia, Russia, all others.
racin	do	13,081	12,675	Belgium, France, Prussia, all others.
	do	7,712	8,873	Dutch East Indies, Prussia, Surinam, all others.
orine	do	3,222	1,244	Do.
ached	do	41	45	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
inted	do	227	327	Dutch East Indies, Prussia, all others.
skins	do			
ot specified	do			

bleached	do	2,842	3,938	Belgium, Great Britain, Dutch East Indies, Prussia, Surinam.
	do	8	13	Dutch East Indies, Prussia, all others.
	do	284	307	Belgium, Dutch East Indies, all others.
t specified, fresh or salted	do	689	577	Great Britain, Dutch East Indies, all others.
k flesh:				
	do	7,036	5,689	Belgium, Great Britain, all others.
	do	138	211	Belgium, Great Britain, Dutch East India, Prussia, all others.
dried	do	296	274	Belgium, Great Britain, Dutch East Indies, Prussia, Surinam.
	do	1,575	1,959	Belgium, France, Great Britain, Dutch East Indies, Prussia, Surinam.
e oil	do	64	49	Belgium, Prussia, all others.
	do	1,870	2,405	Do.
nd seeds	do	22,648	26,196	Great Britain, Hamburg, Dutch East Indies, Norway, Prussia.
petroleum	do	1,670	2,461	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
	do	2,678	2,620	Belgium, Great Britain, Hamburg, Prussia, all others.
	do	2,770	1,968	Belgium, Prussia, all others.
	do	2,387	3,804	Belgium, France, Great Britain, Hamburg, Dutch East Indies, Prussia.
packing paper	do	427	408	Belgium, Great Britain, Hamburg, Prussia.
	do	18	14	Prussia, all others.
	do	19,348	16,070	Belgium, Great Britain, all others.
	do	9,426	8,792	Belgium, Great Britain, Prussia.
d	do	3,615	4,655	Great Britain, all others, Prussia.
	do	889	526	Belgium, Great Britain, all others.
	do	52	35	Belgium, France, Prussia, all others.
ls	do	41,579	36,939	Bremen, Belgium, France, Great Britain, Hamburg, Prussia.
	do	22,955	29,149	Belgium, Prussia, all others.
	do	1,073	1,099	Great Britain, Prussia, all others.
	do	338	648	Prussia, all others.
	do	18,469	20,938	Belgium, Prussia, all others.
	do	12,356	16,909	Great Britain, Prussia, all others.
ufactured	do	17	11	Do.
	do	7,684	7,585	Belgium, Prussia, all others.
	do	20,184	14,537	Belgium, France, Great Britain, all others.
	do	7,664	7,297	Great Britain, Hamburg, Dutch East Indies, all others.
	Hectoliters	232,379	273,412	Denmark, British East Indies, France, Gibraltar, Hamburg, Great Britain, Prussia, Dutch East Indies, Surinam, Sweden, all others.
	do	3,252	3,425	Belgium, France, Great Britain, Dutch East Indies, Prussia.
	1,000 kilos	571	744	Prussia, all others.
	do	7,911	11,319	Belgium, Great Britain, Dutch East Indies, Prussia, all others.
	do	7,400	5,628	America, Great Britain, Dutch East Indies, Prussia, all others.
	do	648	778	Dutch East Indies, Prussia, all others.
	do	13,428	10,768	Belgium, Prussia, Hamburg, Surinam, all others.

ree from export duties, from the Netherlands, during the year ending December 31, 1884, and 1885—Continued.

	Standard.	1885.	1884.	Whither exported.
		9,418	15,238	Belgium, France, Great Britain, Hamburg, Prussia, Russia, Sweden.
	1,000 kilos	78,375	87,352	Belgium, Great Britain, Prussia, Sweden, Norway, France, Spain.
	do	1,184	1,392	Belgium, Bremen, France, Great Britain, Norway, Prussia, all others.
	do	1,242	3,303	America, Belgium, Bremen, Great Britain, Hamburg, Java, Norway.
	do	12,277	11,328	Belgium, Hamburg, Prussia, all others.
	do	8,886	8,213	America, Belgium, France, Great Britain, Hamburg, Prussia, all others.
		182	74	Belgium, Denmark, Great Britain, Italy, Prussia, all others.
	do	1,101	856	Do.
	do	251	394	Belgium, Denmark, Great Britain, Prussia, all others.
	do	820	504	Belgium, Great Britain, Italy, Prussia, all others.
	do	579	468	Denmark, France, Great Britain, Italy, Prussia, all others.
	do	444	440	Belgium, Great Britain, Dutch East Indies, Prussia, Surinam.
	do	107	173	Great Britain, Dutch East Indies, Surinam, all others.
	1,000 liters	619	503	Belgium, France, Great Britain, Prussia, all others.
	1,000 kilos	5,920	6,095	Belgium, Hamburg, Dutch East Indies, Prussia, Russia.
		3,814	3,948	America, Belgium, France, Great Britain, Hamburg, Dutch East Indies.
	1,000 liters	7,268	5,831	America, France, Great Britain, Hamburg, Japan, Dutch East Indies, Prussia.
	do	73,919	64,959	Belgium, Prussia, all others.
	1,000 kilos	78,962	50,876	Do.
er and ship timber	do	3,838	3,525	Do.
and ship timber	do	13,811	12,168	Belgium, Hamburg, Prussia, all others.
sawed	do	311	72	Hamburg, Prussia, all others.
	do	1,400	2,067	Belgium, Prussia, all others.
n	do	12,188	14,029	Belgium, Great Britain, Prussia, all others.
	do	611	736	Do.
	do	795	1,415	Do.
	do	411	741	Do.
	do	471	282	Do.
ool and of woolen yarns	do	330	160	Great Britain, Prussia, all others.
	do	2	2	Do.
	do	848	464	Do.
	do	242	219	Do.
	do	205	275	Prussia, all others.
sewing	do			

wined	do	11,102	13,942	Great Britain, Dutch East Indies, Prussia, all others.
ed, not bleached	do			
ed (colored or not)	do	616	483	Prussia, all others.
indles	do	6	1	Great Britain, Dutch East Indies, Prussia, all others.
orsted:				Prussia, all others.
and not colored	do	126	816	Do.
d, not colored	do	1,672	1,159	Do.
d, colored or not	do	394	253	Prussia, all others; Belgium, Great Britain.
	do	7,771	6,206	Belgium, Great Britain, Prussia, all others.

Vessels and their tonnage entered at and cleared from the port of Amsterdam during the year 1885, distinguishing sailing vessels from steamers and specifying their several nationalities.

Nationalities.	Entered.				Cleared.			
	Steam.		Sailing.		Steam.		Sailing.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Netherlands	396	323,955	127	60,186	393	317,406	126	67,460
British	650	460,874	42	46,784	649	464,660	46	47,585
Norwegian	58	25,886	119	44,686	58	25,886	112	43,572
Swedish	15	10,442	10	4,615	15	10,328	10	4,615
Danish	8	7,967	10	1,845	8	7,967	10	1,752
German	75	58,087	32	13,132	74	54,918	33	14,604
Russian	4	1,945	30	9,363	4	1,945	28	8,263
Italian	------	------	7	6,420	------	------	8	7,178
Spanish	18	21,291	------	------	18	21,291	------	------
United States	------	------	2	1,366	------	------	------	------
French	1	2,461	2	338	1	2,461	2	339
Greek	4	3,699	------	------	4	3,699	------	------
Belgian	1	727	------	------	1	727	------	------
Total	1,230	917,334	381	188,735	1,225	911,288	375	195,368
Total 1884	1,159	773,030	556	240,766	1,168	784,670	560	238,964

Value of declared exports from the consular district of Amsterdam to the United States during the four quarters of the year ending June 30, 1886.

Articles.	Quarters ending—				Total.
	Sept. 30, 1885.	Dec. 31, 1885.	Mar. 31, 1886.	June 30, 1886.	
Bulbs	$64,557 32	$7,692 86	$1,897 98	$3,030 60	$77,178 76
Cattle	24,585 60	13,520 00	3,500 00	11,592 00	53,197 60
Cheese	2,203 99	3,897 90	768 97	276 31	7,147 17
Coffee	128,365 85	241,416 40	214,471 99	282,830 94	867,085 18
Diamonds	129,280 78	140,978 26	372,190 23	331,906 10	974,355 37
Fish: herrings, &c	8,650 48	14,819 58	4,374 82	1,690 14	29,535 02
Gums, dammar, copal, &c	10,497 14	3,311 50	5,357 69	------	19,166 33
Hides and calf skins	5,719 64	7,633 68	2,445 53	3,216 89	19,015 74
India-rubber	------	21,049 90	13,629 51	------	34,679 41
Indigo	------	17,882 96	------	------	17,882 96
Iron, old rails	332 15	12,593 48	32,727 88	24,863 88	70,185 24
Mineral water	2,028 92	------	------	------	332 15
Oils, Haarlem, &c	------	1,965 19	2,595 44	1,679 08	8,268 63
Rags	23,183 36	6,874 22	3,197 02	2,708 00	12,779 24
Rice	33,382 63	10,125 79	25,613 57	29,525 08	88,447 80
Seeds, field and garden	39,360 57	31,046 62	2,414 86	6,284 32	73,128 43
Spices, nutmegs, mace, &c	17,305 53	23,128 14	2,589 92	29,034 22	94,112 85
Spirits, gin and liqueurs	14,011 86	15,417 15	11,761 93	11,237 85	55,722 46
Sugar, beet	209,856 85	9,648 08	------	------	23,659 94
Tin, Banka and Billiton	1,043,630 12	86,333 70	65,503 68	41,606 09	403,300 32
Tobacco	5,753 29	1,622,924 64	198,772 76	297,125 44	3,162,452 96
Vegetables, fresh and pickled	------	16,721 94	545 76	1,107 10	24,128 09
Unenumerated or sundry articles	13,270 13	29,325 82	12,031 17	16,544 02	71,171 14
Total	1,775,976 21	2,338,307 81	976,390 71	1,096,258 06	6,186,932 79
Total for preceding year	921,831 74	1,059,461 16	681,715 32	1,059,270 26	3,722,278 48
	854,144 47	1,278,846 65	294,675 39	36,987 80	2,464,654 31

It is owing to this and the further fact that the leaf-tobacco merchants and brokers here, who, for being wide awake and active, are unsurpassed, if equaled, by the business men of this city in any other branch of trade, publish in good time reviews or statements of each year's operations in the article, that I am enabled to prepare this report so early in the new year.

CROP OF 1885.

The yield of the Sumatra tobacco crop of 1885 is now shown to have amounted to 124,718 bales, being very nearly like the quantity raised in the previous year, 1884, which was 125,264 bales, or 546 bales in excess of the crop of 1885.

During the first nine months of the past year (1886) the entire product or crop of 1885 arrived in Holland, and, excepting 13,049 bales of it brought to and sold at Rotterdam, was landed and subsequently placed on the market and disposed of at Amsterdam.

It was sold in varying quantities at six different sales, which took place on the 14th of April, 19th of May, 25th of June, 23d of July, 22d of September, and 27th of October.

The quantity which actually arrived and was put upon the market in 1886 exceeded that of 1885 by about 12,000 bales, inasmuch as about 12,500 bales of the crop of 1884 were lost at sea.

As to the quality of the whole product immediately under consideration it is rather difficult to speak definitely, as it is variously described, but as compared to that of the product of former years it is said to have shown neither any particular deterioration nor improvement.

It may be remarked, however, that the peculiar and generally acknowledged merits of the article continue to attract more and more the attention of the trade, judging from the ever increasing numbers of leaf-tobacco merchants and cigar manufacturers who come here, especially from Germany and the United States, to attend the sales.

The following is a statement or recapitulation copied out of the report of a sworn broker in leaf-tobacco, covering the crop of 1885 and what was realized from its sale in 1886.

The first column contains the names of the districts or residencies in Sumatra in which the tobacco grew; the next shows the product of each of them; then follow the prices obtained for each in Dutch currency, per half-kilogram, and in United States currency, per American pound, and the approximate total value of the crop of 1886 in United States currency.

Districts.	Number of bales.	Price per one-half kilogram, Dutch currency.	Price per pound, United States currency.	Approximate total value in United States currency.
		Cents.	*Cents.*	
Deli	86,882	144	52⅞	$7,584,000
Lankat	26,516	151	54⅝	2,428,000
Sirdang	4,951	102¾	37⅝	
Bedagei				
Padang				
Batoe Baral				

From the report of another broker I copy the following comparative statement, showing each year's Sumatra tobacco crop since the article has been cultivated on the island, or from 1865 to 1885, inclusive, and the proceeds of same each year, viz:

Year.	Bales.	Average price per one-half kilogram, United States currency.	Total value (about).
		Cents.	
1865	189	60	$16,000
1866	174	45	12,000
1867	224	28	8,000
1868	890	57	80,000
1869	1,381	52	100,000
1870	3,114	49	200,000
1871	3,922	55	300,000
1872	6,409	53	400,000
1873	9,238	73	1,000,000
1874	12,895	61	1,152,400
1875	15,355	68	1,568,400
1876	29,034	62	$2,601,600
1877	36,517	51	2,724,000
1878	48,264	51	3,760,000
1879	57,566	47	4,120,000
1880	65,018	45	4,500,000
1881	82,356	46	5,800,000
1882	102,045	55	8,520,000
1883	93,505	53	7,600,000
1884	125,496	57	10,960,000
1885	124,716	56	10,800,000

The discrepancies in the number of bales and total value of the crop of 1885, as they appear in the foregoing statements, are not due to any mistake of mine, but are owing to the fact that the brokers out of whose reports they are copied do not quite agree.

The cost of production and additional expenses incurred in bringing and laying down the product in Holland are estimated to be from about 85 to 90 cents Dutch currency, or from 34 to 36 cents of our money, and it is therefore obvious how enormously profitable tobacco-raising is in Sumatra.

All through last season American buyers were in the market in larger numbers than ever before, and they were present, as a rule, immediately before, during, and after each one of the sales. Up to nearly the 1st of August their purchases were quite unimportant, so much so as to create the very general impression here that the exports to the United States in 1886 would experience a very great falling off, and would not be likely to amount to much over one-half of what they were in the preceding year 1885.

However, after the sale in July, which supplied the market with more desirable or suitable goods for American consumption than could be found among the lots which arrived and were sold before, and when it appeared to be certain that no immediate change would take place in our tariff on leaf-tobacco, purchases by American buyers increased very considerably, and so did shipments by local firms on consignment to their agents, at New York.

The very high prices which choice parcels commanded did not deter countrymen from securing them, and, altogether, the trade kept

The exports last year (1886) foot up 22,143 bales, valued, as per invoices declared to at this consulate, at $3,240,600.99.

This shows that the difference in the exports as between the last two years amounted to but 2,126 bales less in 1886 than were shipped in 1885, and in the total invoice value for same periods of time the difference is only $264,059.43.

CROP OF 1886.

As to the new crop which will be brought into the market in the present year, little can as yet be said with any certainty.

One of the brokers ventures upon publishing a statement according to which the crop of 1886 will show an increase of about from 10,000 to 15,000 bales over that of 1885, and that it seems to promise to be of a "light-weighted, bright growth," with more spotted, but with much less "broken leaf" than the last crop.

The matter of our tariff on leaf-tobacco is so very often brought to my notice by our countrymen who periodically attend the sales here, and by those interested in the leaf-tobacco trade in this country, as to suggest to me venturing upon the expression of a few observations touching the same.

The enactment, in 1883, and keeping in force of the provision which prescribes a higher rate of duty on leaf-tobacco, of which 85 per cent. is of the requisite size and of the necessary fineness of texture to be suitable for wrappers, and of which more than one hundred leaves are required to weigh a pound—than is payable on other leaf-tobacco—has created and sustains a bad impression on the part of the Government of Holland and in commercial circles.

It has given rise to and sustains the imputation that its enactment was a roundabout, indirect way to reach and discriminate against an article, the product of one of the colonies of the Netherlands, which, as is argued here, is produced nowhere else, nor is nor can be imported into the United States only from the colony direct, or from the mother country—Holland.

Whether this imputation is entirely groundless or not, it would seem in either case that its existence deserves to be taken into consideration by our Government, to the end that it or our Congress may cause its speedy removal by changing or abolishing the provision in our tariff above referred to.

Considering, furthermore, that the payment of the higher rate of duty on leaf-tobacco is, in some way, either evaded in many cases, or, somehow, not assessed, exacted, and covered into the Treasury, but upon only, or comparatively, a very small proportion of the total of Sumatra-tobacco importations, would appear to constitute an additional reason, making speedy action in the premises desirable.

CROP RESULTS IN THE NETHERLANDS IN 1886.

Upon my urgent request I have been kindly furnished by the courteous director of the agricultural school at Wageningen with an advance copy of a statement containing facts and f[illegible]
ascertained aver[illegible]
erlands

for purposes of comparison, what the same was in 1885 and in 1884, as follows, viz:

Crops.	1886.		1885.		1884.	
	Cereals, &c.	Straw, &c.	Cereals, &c.	Straw, &c.	Cereals, &c.	Straw, &c.
Wheat	65.	60.5	76.1	73.5	73.1	73.8
Rye	59.2	51.7	72.4	72.1	72.6	76.3
Barley	63.9	60.9	67.1	65.6	66.5	65.3
Oats	78.5	77.4	66.5	64.1	58.9	58.1
Buckwheat	60.	53.4	30.9	36.5	57.8	57.6
Beans	65.6	64.9	42.5	43.9	47.8	48.5
Peas	57.6	57.6	50.7	53.1	60.7	57.6
Potatoes	61.6	-----	75.2	-----	82.2	-----
Sugar-beets	50.9	-----	55.6	-----	70.5	-----
Rape-seed	50.2	49.7	68.6	69.2	68.2	65.2
Caraway-seed	60.	57.1	63.4	-----	60.	-----
Canary-seed	62.8	62.2	65.1	64.	59.3	58.4
Chicory	73.9	-----	67.	-----	75.2	-----
Flax	62.7	64.8	61.9	61.	66.1	65.9
Hemp	66.6	71.	64.	64.6	71.	72.
Tobacco	-----	82.1	-----	66.8	-----	88.6
Mangelwurzel	63.7	-----	59.7	-----	68.6	-----
Turnips	56.2	-----	49.6	-----	61.	-----
Carrots	66.8	-----	51.4	-----	61.1	-----
Clover	69.8	71.	57.5	59.5	64.9	64.5
Grasslands	77.8	78.4	55.8	61.5	72.8	72.8
Garden products	71.	-----	64.5	-----	70.9	-----
Apples	37.	-----	60.8	-----	36.6	-----
Pears	28.2	-----	79.7	-----	26.4	-----
Cherries	55.2	-----	66.4	-----	38.5	-----
Plums	58.	-----	79.4	-----	35.1	-----
Strawberries	64.7	-----	63.4	-----	73.5	-----
Currants	63.8	-----	62.5	-----	60.9	-----
Flower-roots	66.7	-----	65.4	-----	69.5	-----
Nurseries	72.7	-----	67.	-----	73.6	-----
Flower-culture	73.	-----	70.2	-----	76.4	-----
Woodlands	71.3	-----	69.5	-----	74.	-----

NOTE.—As standard, indicating, and for comparison of, the results of the harvest, the figures 100 stands for an exceptionally favorable, say an excellent crop; 90, very good; 80, good; 70, fairly good; 60, above middling; 50, middling; 40, below middling; 30, small; 20, bad; 10, failed. The highest figures, as 100 and 90, and the lowest, as 10 and 20, do not apply to the above tabular statement, but have reference to the crop-results of certain products in some particular communes (*Gemeenten*), in which such results were obtained.

GENERAL SUMMARY REMARKS.

On comparing the figures for 1886 with those for 1885, it appears that a much superior result was obtained as to buckwheat, beans, turnips, carrots, tobacco, grasslands, and hemp, the latter only as far as the fibrine is concerned; a rather considerable increase was obtained as to oats, clover, and cabbage-gardens; and a slight increase over 1885 is to be recorded regarding the peas, flax, chicory, and mangelwurzel crops. About the same as in 1885 came out linseed and hemp seed, strawberries, currants, flower-roots, nursery and flower gardens and woodlands. Much inferior results than in 1885 were obtained as to rye, rape-seed, apples, pears, and plums; the product of the latter three was about equal to that of 1884. The decrease in wheat, potatoes, and cherries was rather considerable, and the crops of barley, sugar-beets, caraway-seed, and [illegible] slightly less than in the preceding year. [illegible] satisfactory, and the year [illegible]

In consequence, however, of the low market prices of nearly all agricultural and dairy products and of cattle, the financial position of the farmers and cattle-breeders has not improved.

GENERAL CROP RESULTS, 1886.

The yield of the wheat crop in the United States is set down as in excess of that of 1885 by about 20 per cent.; whilst the rye product was 5 per cent., and the product of Indian corn about 15 per cent., less than in 1885.

In England the crops are not claimed to have turned out favorably, and, as is well known, grain fields there are from year to year being more and more converted into meadow lands.

In France the yield of the crops is also represented to compare unfavorably with that of the previous year, not so much so on account of quantity, but the weight per hectoliter is said to have turned out much lighter.

From Germany it is reported that the result of the cereal crops was very much the same as in 1885.

From Russia it is learned that the yield of winter wheat shows a decrease, whilst that of summer wheat and rye is greater than in 1885.

From British India information is to the effect that the wheat crop of 1885–'86 may, on the whole, be regarded as satisfactory. In some districts grain was greatly injured in consequence of unseasonable heavy rains. The estimate puts the results of the crops at about the same as in the previous year; the different reports on the subject speak of it as being from 80 to 100 per cent. of a full crop.*

As to the crops in Holland, it is said that there was no occasion for and no complaints regarding the winter sowing, as the long-continued winter weather greatly favored it, but this at the same time prevented the sowing of summer grains in proper season, and altogether expectations for a good crop were not very sanguine. The fine, warm weather in August did much good in counteracting the injurious effects of the lateness of the season, but, after all, the crops in general showed in the end a falling off in quantity.

White wheat turned out indifferent in quality, weighing only from 74 to 77 kilograms per hectoliter; red wheat resulted better, but still staid far behind the crop of 1885. Rye yielded but a moderate crop, on the average. Barley, both winter and summer, suffered greatly from excessive rains, and turned out inferior in color and weight. Oats were sowed in much larger quantities than usual—as the season had advanced too far for the sowing of other grains—and yielded an abundant crop. Beans and peas produced a very satisfactory harvest, but the crop of potatoes has been poorer than in the last two years.

THE GRAIN TRADE.

In the beginning and during the early months of the year the prospects for improvements in the grain trade, for increased transactions, and an advance in prices were extremely gloomy.

*Additional information received speaks of a considerable decrease in the crop of India, having amounted to 30,775,000 quarters in the year [illegible] the net

Political reports of a more or less warlike character caused a little animation from time to time, but expectations as to a betterment in prices vanished about as quickly as they were cherished.

The "*Baissiers*" kept almost unremittingly at their game, in spite of the already low prices ruling, and they were supported therein by the favorable accounts regarding the condition of the growing crops. Later on in the year less favorable reports as to the state of the crops came in from the country, and offers from abroad also became more limited.

About then "the trade," not only in grain, but in various other articles as well, began to realize that the climax of the "*Baisse*" operations had been reached; "*Baissiers*" were soon less numerous in the market and their movements restricted. The trade then became more buoyant and hopeful, and confidence in the approach of better times established itself, which at the close of the year gave very generally a more healthy tone to the business and more inclination to new enterprises.

THE WHEAT TRADE.

Transactions in wheat in the past year were somewhat more extensive than in 1885. The imports were larger; in part they were intended for transit, especially via the port of Rotterdam; another portion was imported direct for the mills in this country, leaving speculation to be confined to a very limited sphere.

As represented to me, the "*Baissiers*" in the article had for about two years very much their own way, and succeeded to keep down its price, causing it to be extremely difficult to re-establish a better feeling in the market. Nevertheless, better opinions began to obtain at last, and at about the end of the year a slight upward tendency in wheat prices could no longer be gainsaid. In consequence of deficient crops, especially in England and France (which countries, as is estimated, will together require to import about 80,000,000 hectoliters foreign wheat), the producing and export countries have or are raising the price of the article; and when it is taken into consideration that the price of wheat is still very low, it is not to be wondered at that importers and speculators are induced to renew and increase their operations. It is at this time confidently believed here by parties who understand the trade in question, that wheat purchases at the prices ruling at the end of the year 1886 involve no risk for the near future, as, even leaving out of sight the possibility of a European war, political complications are not likely to cease, and they are quite apt to cause advances in the price of the article under consideration.

What would further seem to point an improved tendency of the market consists hereof, that, what is ordinarily quite unusual during the latter half of the month of December, the demand for and transactions in the article increased, which is held to be a sign that there is great need for it.

It is said that at the same time England was buying heavily in the [illegible] and France purchased but lightly, and partly distrust the stability of

The imports of rye, wheat, and barley into Holland, or at Rotterdam and on the Maas, and at Amsterdam and on the Zaan, for ten years, or from 1877 to 1886, both inclusive, were as follows, viz:

Years.	Rotterdam and on the Maas.			Amsterdam and on the Zaan.		
	Rye.	Wheat.	Barley.	Rye.	Wheat.	Barley.
	Lasts.	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*
1877	81,400	43,050	34,700	27,750	12,150	3,225
1878	105,100	82,450	38,975	36,340	19,350	7,370
1879	134,823	103,393	39,356	38,170	16,670	4,477
1880	80,300	100,323	39,903	21,182	17,468	6,643
1881	62,803	101,371	42,290	19,710	14,420	4,810
1882	88,295	138,867	46,499	42,216	31,198	10,869
1883	104,512	139,282	49,016	47,700	26,917	4,653
1884	107,468	169,980	51,832	34,471	26,384	5,639
1885	90,701	134,426	56,655	61,171	25,465	5,224
1886	121,109	150,750	59,580	39,488	19,238	4,211

The trade (exports and consumption), during the same period of time, was as follows, viz:

Years.	Rotterdam and on the Maas.			Amsterdam and on the Zaan.		
	Rye.	Wheat.	Barley.	Rye.	Wheat.	Barley.
	Lasts.	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*
1877	74,900	42,985	38,770	19,245	12,840	3,560
1878	107,773	84,136	38,027	31,060	18,060	6,067
1879	139,222	104,178	39,776	46,325	18,500	5,399
1880	82,826	96,246	40,957	34,902	17,278	6,699
1881	62,839	101,442	40,848	19,625	15,065	5,115
1882	86,600	140,800	48,600	39,336	29,163	10,784
1883	107,900	138,800	48,000	44,900	22,917	4,453
1884	104,832	170,685	51,875	39,338	29,273	5,612
1885	90,341	133,986	56,254	47,472	25,335	4,913
1886	120,058	153,559	58,543	36,590	19,983	4,661

The following statement shows the stock on hand of cereals and seeds at the ports or in the markets of Holland at the expiration of each of the last ten years, or from 1877 to 1886, both inclusive, viz:

Years.	Wheat.	Rye.	Barley.	Oats.	Buck-wheat.	Buck-wheat groats.	Maize.	Rape-seed.	Lin-seed.
	Lasts.	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*
1877	6,346	32,108	5,131	190	207	3,620	97	1,734	9,369
1878	5,779	34,712	7,321	410	338	1,268	1,205	3,542	7,533
1879	3,164	22,163	5,978	392	36	2,658	311	4,623	7,148
1880	7,555	5,919	4,949	501	304	1,222	3,721	5,163	7,535
1881	5,771	5,973	6,046	1,129	536	976	559	2,497	7,579
1882	7,040	10,563	4,027	338	243	2,965	88	1,061	8,781
1883	11,458	10,064	5,298	410	25	1,598	595	334	5,113
1884	7,880	7,821	5,248	625	70	3,296	212	1,015	3,692
1885	7,500	21,870	5,989	122	468	1,279	461	1,764	3,477
1886	5,925	25,816	6,576	496	489	413	420		
Average	6,842	17,707							

Statement showing the countries and places whence rye and wheat were imported into Rotterdam and on the Maas, and the quantity from each during the last five years.

Whence imported.	1886.	1885.	1884.	1883.	1882.
RYE.	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*
St. Petersburg	30,490	1,610	7,459	6,906	2,989
Revel, Pernau, &c	2,981	2,434	5,574	11,895	6,441
Riga, &c	3,551	8,013	5,518	3,341	4,679
Libau and Windau	3,165	3,628	2,569	8,092	4,205
Prussian Baltic ports	6,475	9,276	3,704	16,863	15,980
Russian Black Sea ports	59,692	56,881	57,280	39,788	34,254
Turkey	14,415	7,033	18,068	14,338	16,898
America	305	1,826	7,121	3,289	1,726
Sundry places	35	.....	175	.....	1,123
Total	121,109	90,701	107,468	104,512	88,295
WHEAT.					
Russian Baltic ports	52,452	28,363	70,951	75,222	38,288
Prussian Baltic ports	39,915	34,879	12,424	8,271	9,520
Russian Black Sea ports	30,275	58,992	44,335	32,993	59,866
Turkey	9,789	5,217	6,088	8,384	1,828
America	12,791	1,571	27,724	2,894	16,522
India	4,972	3,800	6,200	11,168	12,643
Sundry places and indirect	556	1,604	2,258	350	200
Total	150,750	134,426	169,980	139,282	138,867

MAIZE.

The imports of Indian corn in 1886, from the United States and in general, also show an increase over those of the four preceding years, as will be seen by the following statement:

Whence imported.	1886.	1885.	1884.	1883.	1882.
	Lasts.	*Lasts.*	*Lasts.*	*Lasts.*	*Lasts.*
New York, &c	12,088	8,787	5,955	6,534	1,967
New Orleans	1,667	2,109	.....	993	.....
Black Sea ports	5,141	1,627	8,231	5,193	3,889
All other	188	186	745	.....	113
Total	19,084	12,709	14,931	12,720	5,969

The following statements show the lowest and highest prices of rye, wheat, and maize, as they ruled in the markets of Holland, for rye per 2,100 kilograms, for wheat per 2,400 kilograms, and for maize per 100 kilograms, during the periods therein indicated:

Years.	RYE.					
	Prime South Russian.		American.		Courland (118 pounds).	
	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.
	Florins.	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*
					200	265

WHEAT.

Years.	130 pounds American summer.		American red winter.		130 pounds Odessa.		Calcutta Club II.	
	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.
	Florins.	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*
1877	325	385	.....	.....	315	380	.....	.....
1878	275	345	.....	.....	270	340	.....	.....
1879	270	375	.....	.....	270	360	.....	.....
1880	285	315	.....	.....	285	315	.....	.....
1881	320	350	.....	.....	312	350	.....	.....
1882	.....	.....	275	350	260	330	.....	.....
1883	.....	.....	290	300	270	285	230	260
1884	.....	.....	220	290	210	270	200	235
1885	.....	.....	225	255	200	230	205	220
1886	.....	.....	210	245	200	225	198	225

MAIZE.

Years.	Lowest.	Highest.	Years.	Lowest.	Highest.
	Florins.	*Florins.*		*Florins.*	*Florins.*
1881	7.25	8.50	1884	7.00	7.50
1882	8.50	12.00	1885	6.00	7.50
1883	7.00	8.00	1886	5.75	6.50

Additional information received speaks of a considerable decrease in the wheat crop of India, having amounted to 30,775,000 quarters in 1885–'86, as against 35,984,000 quarters in the preceding year; and that the quantity of wheat in the hands of the natives was also very small.

The exports last year are said to have footed up about 5,500,000 quarters, and it is considered likely that a similar quantity may be exported this year.

Regarding the state of the growing crop, general reports are favorable.

FLOUR IMPORTS AND TRADE.

The imports of grain flour of all sorts into Holland have largely increased during the past year as compared with what they were in 1885 and in 1884.

An official statement shows them to have amounted to 83,851,000 kilograms in the first eleven months of 1886, against 60,671,000 in 1885, and 58,145,000 in 1884.

The same statement says that of the above-mentioned quantity imported in 1886, 39,897,000 kilograms came from Prussia, 14,113,000 from Belgium, 10,688,000 from Hamburg, and 13,828,000 kilograms from America, which presumably means from the United States, and very nearly all wheat flour.

The trade at Amersdam in bakers' flour (wheat) was of more importance, and more transactions at acceptable prices regularly took place during the first half of the past year than was the case for same period of 1885, and during the latter half of the year the business in the article became even more brisk still.

The general

The favorable results of last year's American wheat crop, as regards quantity and quality, and the deficiencies in the yield of the crops of several European countries, placed our millers and exporters again in position easily and successfully to compete against the domestic as well as against certain foreign producers, and enabled them to supply wheat flour at prices so low that the latter, especially the Hungarian millers, had, comparatively speaking, the market shut against them.

The imports of ordinary or low grades of American flour were also quite considerable in 1886, and they also proved, as a rule, of better quality (*kräftigerer Backart*) than shipments of the same class goods received here in former years.

At about the close of the year, when prices of flour considerably advanced in the United States, and for lack of disposition here to speculate, transactions in the Amsterdam market became rather limited in the month of December.

Present indications point to a good trade in American flour during some months to come, but as to what it is likely to result in during the latter half of the year cannot now be predicted, as that depends very greatly upon the prospects and result of the crops of this year.

In this connection I would call the attention of our millers and flour exporters to the forthcoming Exhibition of Food at Amsterdam, May to October, 1887, so they may consider whether it might not be advisable to display here full and choice assortments of breadstuffs, &c. The exceptionally good quality of our last wheat crop might be a special inducement for them to participate, which, if it were done, might possibly prove very beneficial.

The following statement has been kindly furnished me by the collector of this port; it shows the imports at Amsterdam of wheat, rye, and other flour, and the countries and places wherefrom, in 1885 and 1886:

Kind of flour and whence imported.	1885.	1886.
	Kilograms.	*Kilograms.*
Wheat flour:		
England	841,717	211,863
Hamburg	1,874,058	2,056,456
Austria		10,000
Prussia	566,381	2,739,290
United States	6,847,137	9,240,436
Belgium	332,454	335,084
Total	10,461,747	14,593,129
Rye flour:		
Denmark	71,045	40,000
England		20,000
Hamburg	2,359,384	6,979,159
Prussia	6,113,453	7,755,376
United States		124,099
Total	8,556,382	14,918,634
Other sorts:		
Bremen	1,000	
England	15,197	2,366
Hamburg	84,272	75,010
Prussia	1,209	5,890
United States	15,600	
Belgium	7,725	745
Total	125,003	84,011

BACON.

and other hog products at
increasing

From a statement and estimate before me, furnished by a firm here best informed on the subject, it appears that in 1886 only about 5,500 cases, or about 1,300,000 kilograms, American bacon reached the markets of Holland, whereas some years ago, in 1879 and 1880, over 6,000,000 kilograms were imported each year.

From a trade review for 1886, published at Rotterdam, I quote as follows:

American bacon and lard were imported only by retailers (in detail), and, therefore, there attaches, for the moment, no interest to these articles of any value to the wholesale market.

At the same time it is pleasing to be able to remark that my informants assure me American bacon comes here in ever-improved quality, and that generally our packers are doing their utmost to satisfy the trade and consumers by supplying the American product so as to deserve and meet their expectations.

TRICHINÆ.

Inasmuch as it has always been believed here that Dutch hogs enjoyed entire immunity from being infected with trichinæ, it would appear deserving to be stated that confidence in the infallible soundness and purity of the domestic hog product is greatly shaken by what has just happened in the province of Zeeland.

From what appears to be entirely trustworthy information, there are now quite a number of persons afflicted with trichinosis in the town of Goes, in the said province, in consequence of having eaten the raw or insufficiently cooked meat of an animal (hog) born and raised at a place in the neighborhood called Kloetinge.

Samples of the pork, salted, suspected to bave caused the disease have been examined, and trichinæ found therein, and as about half the animal remained undisposed of in possession of the party who had brought the other half to and sold it at Goes, and as an examination thereof also showed it to be infected with trichinæ, it is proved conclusively that the inland hog product is not altogether exempt from trichinæ, though none had previously been discovered therein.

AMERICAN STAVES.

Of this article the imports were quite large. Some sorts, as, for instance, "Baltimore cask-staves," came here in such large quantities that, notwithstanding the very good demand and extensive sales in consequence of the favorable result of last year's herring-catch, a large proportion of them remained undisposed of at the end of the year. The demand for pipe-staves is usually unimportant, whereas heavy and light hogshead-staves are generally placed more easily.

The imports into this country, principally at Rotterdam, are shown by the following statement, viz:

Imports and stock.	Pipe-staves.	Hogshead-staves.	Cask-staves.
1886			
1885			

TIN.

As reported to me by the principal firm trading in Banka and Billiton tin at Amsterdam, there is but little of any note or interest to be stated as relating to transactions in the article during the year 1886 in Holland. Hardly any speculative operations took place during that period; but there was a regular demand for consumption, which increased about 8 per cent. as compared to 1885, whereas the production, as I am informed, has not quite kept pace therewith.

The stock on hand in Holland, England, and in the United States fell considerably short at the close of last year when compared to what it amounted to at the end of the previous year, 1885.

The prices ranged about 10 per cent. higher than they did in 1885.

The exports of Banka and Billiton tin from this consular district to the United States consisted, in 1886, of only 11,483 blocks, with an invoice value of $215,867.25, as against 25,328 blocks, valued at $389,703.46, in 1885, showing a decrease in the exports from here to the United States during the former year amounting to 13,845 blocks, and in value to $173,835.51.

Transactions in Banka and Billiton tin in Holland in 1886.

Stock, imports, &c.	Banka.		Billiton.	
	Blocks.	Tons.	Blocks.	Tons.
Stock and sailing, December 31, 1885	101,286	3,143	53,252	1,731
Imported in 1886	120,992	3,755	89,921	2,923
Total	222,278	6,898	143,173	4,654
Sold and exported in 1886	134,292	4,168	80,371	2,613
Stock on hand December 31, 1886	87,986	2,730	62,802	2,041

The prices during 1886 were, on the 31st of each month, for Banka and Billiton tin, in this market, per 50 kilograms, less half per cent. discount, as follows:

Month.	Banka.	Billiton.	Month.	Banka.	Billiton.
	Florins.	*Florins.*		*Florins.*	*Florins.*
January	55¾	55¾	July	60	59⅜
February	56¼	55¾	August	60	59¼
March	56¼	56	September	62	61¾
April	56½	56¼	October	61	60¾
May	58½	58¼	November	61¼	61½
June	62¼	61¾	December	59¾	59¼

The total transactions in this market ran up to only about 70,000 bales, of which quantity nearly one-half remained over from the previous year, or was stock on hand on the 1st of January, 1885.

The re-exports during the period covered by this report amounted to about 50,000 bales.

These are all very small ciphers, not only in comparison to other markets on the continent of Europe, but small even if considered in connection with the yearly consumption in this country.

It may safely be assumed, I understand, that about 50,000 bales of cotton are worked up in the mills of this country per annum, and it is stated to be a matter of regret to local importers that the manufacturers procure only a small proportion of their required supplies in this market.

In as far as the spinners import cotton from countries of production, it is held to be but in the natural course of affairs so to do, but they seem to be more or less reproached for drawing supplies from and patronizing the markets of Bremen, London, and even Antwerp

This is the more notable, when, at the same time, it is remarked that German and Swiss spinners purchase cotton in this market regularly, though only in limited quantities.

It is even brought to my notice that in certain cotton transactions it is becoming a rather common affair for Amsterdam merchants or agents to act as intermediaries between American or Indians exporters and German spinners; affairs which are considered as in reality outside of this market, as in which cases the cotton is sometimes not brought to this port at all.

A large proportion of the business in cotton here are transactions for "future delivery," which are said to be regulated and conducted in such a manner as generally to afford convenience and satisfaction.

As reported to me, heavy speculative operations took place at New York during the first weeks of the month of December, which were followed by similar transactions at London and Havre. This caused also considerable animation in the trade here and a rise in the prices. At the close of the year this little excitement had subsided again; the market was calm.

The following is a statement showing the imports of cotton—American, East Indian, and other sorts—during the past twenty-five years, or from 1862 to 1886, inclusive:*

Years.	American.	East Indian, &c.	Total.	Years.	American.	East Indian, &c.	Total.
	Bales.	*Bales.*	*Bales.*		*Bales.*	*Bales.*	*Bales.*
1862	924	6,761	7,685	1875	27,178	28,703	55,881
1863	.....	6,791	6,791	1876	56,438	37,066	93,504
1864	585	14,073	14,658	1877	59,468	15,498	74,966
1865	106	13,904	14,010	1878	65,666	21,443	87,109
1866	3,155	26,723	29,878	1879	70,054	28,193	98,247
1867	6,881	20,589	27,470	1880	34,448	13,770	48,218
1868	17,427	37,299	54,726	1881	52,619	24,631	77,250
1869	15,116	50,994	66,110	1882	36,099	7,227	43,326
1870	30,955	25,011	55,966	1883	73,171	11,256	84,472
1871	119,976	43,212	163,188	1884	51,019	13,006	64,025
1872	59,763	103,424	163,187	1885	29,734	3,017	
1873	42,519	24,168	66,687	1886			

The weekly price notations at Amsterdam in 1886 were as shown in the following statement, per half-kilogram, in Dutch currency, viz:

Date.	Middling American.	Good fair Oomra.	Date.	Middling American.	Good fair Oomra.
	Cents.	*Cents.*		*Cents.*	*Cents.*
January 9	28	23	July 17	28¾	22
January 16	28	22	July 24	28¾	22
January 23	28	22	July 31	29	22
January 30	27¾	22	August 7	29	22
February 6	27½	22	August 14	29	22
February 13	27½	22	August 21	29	22
February 20	27	21½	August 28	29	22
February 27	26½	21	September 4	28¾	22
March 6	27½	21½	September 11	28¾	22
March 13	27	21½	September 18	29	22
March 20	28	22	September 25	29	22
March 27	27½	22	October 2	29½	22
April 3	27½	22	October 9	29¼	22
April 10	28	22	October 16	29	22
April 17	28	22	October 23	29	22
May 1	28	22	October 30	29	22
May 8	27¾	22	November 6	29	22
May 15	27¾	22	November 13	29	22
May 22	27¾	22	November 20	29	22
May 29	27¾	22	November 27	29	22
June 5	27¾	22	December 4	29¾	22
June 19	27¾	22	December 11	29¾	23
June 26	27¾	22	December 18	29¼	23
July 3	28¼	22	December 31	29	23
July 10	28¾	22			

RICE.

Operations in this article in Holland in 1886 were not characterized by any improvement as compared to what they were in 1885, in which year the rice trade, which for some years previously had been rather prosperous, became seriously affected by the general depression in business and other surrounding circumstances.

The market showed throughout the year but rarely any signs of activity and firmness, but the usual weekly and monthly reports referred to rice as weak, dull, and inactive.

As causes of the unsatisfactory condition of transactions in the article are assigned, the great abundance of competing articles of food and consequent low prices; the poor quality of Burma rice, of which many cargoes arrived unfit for hulling, and could only be sold for animal food; the large Java crop of 1885, resulting in continued large imports and a decline in prices, particularly of "Java tafel."

The decline in some sorts of this product (Java) amounted to about 30 per cent., without inducing the least speculation.

Sales of hulled and polished goods—though prices were low, seldom paying to rice-millers—were languishing and difficult to be effected throughout the year.

The total imports into Holland amounted in 1886 to 1,212,000 bags, consisting of:

	Bags.
	403,000

In 1885 the total imports footed up 1,097,000 bags, and in 1884 they were 1,240,000 bags.

The stock of rice in Holland on the 31st of December of each of the last five years, consisted:

	Bags.
1882	7,374
1883	4,000
1884	3,141
1885	21,163
1886	43,254

The exports of rice from this consular district to the United States in 1886 decreased by more than one-half compared to what they amounted to during each of the two previous years. In 1886 they consisted of only 14,295 bags, represented by an invoice value of $73,276.08, as against 30,375 bags, valued at $214,531.51, in 1885, and 34,579 bags, valued at $208,403.22, in 1884.

INDIGO.

The stock of this article on hand, in this market, at the beginning of the year being very small, importers of it held out for high prices, which caused transactions to be unimportant until the month of March, when about thirteen hundred chests were offered at public sale.

Owners met the wants of the market.

The entire quantity offered was sold, but at low figures; 12 to 15 cents, American, per half-kilogram beneath those obtained for similar qualities and disposed of at auction in April, 1885.

Large arrivals of new crop indigo continued until July, when the stock consisted of forty-six hundred chests; in the mean time the market remained depressed. Unfavorable reports regarding the British India crop then began to improve the state of the market, and at the low prices ruling, a rather considerable and satisfactory business resulted, and was maintained during the second half of the year.

Java indigo being considered the cheapest of all kinds, as I understand, consumers all through Europe procured their supplies in great part in this market.

However, and as in the previous year, there was but little demand for the higher grade goods, whilst the low and cheap grade could be readily sold.

The imports of Java indigo into Holland reached a higher figure in 1886 than has been the case for a great many years. This is said to have been partly owing to increased production, and to the fact that shipments from Java direct to consuming countries amounted to considerably less than in former years.

The following statement shows the imports of Java indigo into Holland, and for transshipment to different countries on the Continent, during the years 1884, 1885, and 1886, in chests of about 140 pounds each, viz:

Years.	Imports.	Transit	Stock in first

The imports of indigo from British India and Guatemala were, as usual, very unimportant and can hardly be put under figures.

The exports of Java indigo from this consular district to the United States were last year, and have been in fact up to the present time, very trifling; only some experimental shipments as it were have taken place, and it is stated to me by importers here that if American consumers would give the article a more serious trial, they would be apt, like the French and German, to use it more extensively.

DYE-WOODS.

Operations in dye-woods, on the decline for some years last past, have not revived in 1886.

The imports during the year were very small, and as there remained hardly any stock on hand at its close, there arose a somewhat better demand, but it is said that higher freights are apt to prevent large imports.

DIVI-DIVI.

Though the imports of this article amounted to less than in 1885 and to hardly one-half of what they were in 1884, the demand for it did not increase; on the contrary, prices for some ruled lower than in the preceding year.

Philadelphia bark.—Remained slow of sale and with little inquiry throughout the year.

Extracts of dye-wood.—In moderate demand.

Madder.—This article found a fairly ready market throughout the year, without, however, securing really paying prices to the farmers who cultivate it, and whose generally unfavorable condition induced them to accept any fair offer for this as well as for any product of the soil or the farm. The new crop is estimated at about 3,000 casks.

SPICES, GUMS, ETC.

Through the failure of the crop of nutmegs and mace in India, imports were smaller than usual. The prices, however, remained about the same as in 1885 during the early part of the year. Later on the market became much more firm; stimulated by considerable demand for consumption and speculation, prices advanced. Imports of pepper, cloves, cinnamon, and cassia were small, with a general upward tendency in prices.

The imports of East India gum-elastic and gutta-percha were rather extensive, and found buyers at prices satisfactory to importers.

Gum copal, the imports of which amounted to about 1,500 tons, was in good demand throughout the year. Gum damar, of which about 4,000 cases were imported, sold at constantly advancing prices. For varnish gums the Dutch market takes the lead in Europe, being

AMERICAN TOBACCO.

In former times the imports of American leaf-tobacco of different sorts into Holland were very large. The trade therein and the consumption of it, in this country, has declined very greatly, and is now comparatively insignificant. The cause, no doubt, is the great development of the tobacco culture in the Dutch colonies of Sumatra and Java during recent years, and the importations and consumption for various purposes of very low grade and very cheap tobaccos from several other foreign countries, and which, in many cases, are substituted or used in place of American tobacco.

The following statements show the stock on hand of American leaf-tobaccos on the 31st of December, 1885 and 1886, and the imports and sales in 1886, at Amsterdam and Rotterdam, viz:

Stock, imports, &c.	Amsterdam.			Rotterdam.			
	Seed-leaf.	Maryland.	Kentucky and Virginia.	Seed-leaf.	Maryland.	Virginia.	Kentucky.
	Cases.	*Hhds.*	*Hhds.*	*Cases.*	*Hhds.*	*Hhds.*	*Hhds.*
Stock on hand December 31, 1885	318	1,832	201	23	556	67	104
Imported in 1886	1,547	2,914	196	2,162	4,379	624	766
	1,865	4,746	397	2,185	4,935	691	870
Sold in 1886	1,625	3,754	280	1,678	4,418	568	648
Stock on hand December 31, 1886	240	992	117	507	517	123	222

THE COFFEE TRADE IN HOLLAND IN 1886.

Few articles of commerce proved, during the year 1886, so profitable and generally satisfactory to the trade of this country as did coffee.

The rather sudden and almost unprecedentedly great rise in the price of the article, which was not and could not well be foreseen during the first half of the year, and which set in in the second semester, found this market well stocked with coffee, consisting, however, in great part, of fancy sorts (so called by the trade), which were less affected by the advance in the price.

Thus it came that the Dutch market, whilst realizing handsomely by the year's transactions, was not, it is said, benefited thereby to the same extent as were Havre, Hamburg, and other markets.

The course and rise in the prices which brought about such favorable results were from 24½ to 25½ cents, Dutch currency, for good ordinary Java (the generally accepted basis in determining the value of coffee in Holland), per half kilogram, up to the month of June, in which month it brought, at an auction sale, as much as 27½ cents, purchases being looked upon as venturesome. Three months later the same goods were on all sides bought up at 34⅓ to 35 cents. A little reaction followed this agitated state of the market in [illegible] receded to 32

Stock on hand at end of December 1886, 1885, *and* 1884.

Stock.	1886.		1885.		1884.	
	Bags.	*Cases.*	*Bags.*	*Cases.*	*Bags.*	*Cases.*
Stock represented by "cedules" or warrants in circulation	270,683	628	287,832	440	334,549	1,111
Unsold stock in hands of Netherland Trading Company	151,000	279	445,600	1,059	427,500	311
Stock of East India coffee in hands of private parties	79,500	.....	118,200	28	154,200	.....
Stock of West India coffee in hands of private parties	700	.....	6,300	.....	1,300	.....
Total	501,883	907	857,932	1,527	917,549	1,422

Sailing from East India end of December 1886, 1885, *and* 1884.

For—	1886.	1885.	1884.
	Bags.	*Bags.*	*Bags.*
Netherland Trading Company	167,000	43,700	355,200
Private parties	26,100	29,400	36,300
Total	193,100	73,000	391,500

Deliveries from January 1 *to December* 31, 1886, 1885, *and* 1884.

By—	1886.		1885.		1884.	
	Bags.	*Cases.*	*Bags.*	*Cases.*	*Bags.*	*Cases.*
Netherland Trading Company	780,685	4,354	916,783	5,361	828,306	6,870
Private parties, first hand	399,700	361	447,700	529	428,800	.....
Total	1,180,385	4,715	1,364,483	5,890	1,257,106	6,870

The sales at auction by the Netherland Trading Company (Government agents) amounted, during the year ending December 31, 1886, to 760,223 bags and 4,542 cases, as against 862,753 bags and 4,696 cases in 1885, and 932,183 bags and 7,806 cases in 1884.

The stock on hand by private parties (first hand) at Amsterdam and Rotterdam at the end of December, 1886, consisted of: Java, 62,668 bags; Padang, 300 bags; Macassar, 16,542 bags; Santos, 670 bags; total, 80,180 bags, as against end of December 1885, 124,530 bags, and 155,501 bags in 1884.

Consumption of coffee in the several countries during the first eleven months of the years 1886, 1885, *and* 1884.

Countries.	1886.	1885.	1884.
	Tons.	*Tons.*	*Tons.*
[illegible]	[illegible]	110,778	101,773
[illegible]	[illegible]	[illegible]	61,211

Stock of coffee on hand in the principal markets of Europe on the 31st of December of the years 1886, 1885, and 1884.

Countries and places.	1886.	1885.	1884.
	Tons.	*Tons.*	*Tons.*
Netherlands	30, 150	51, 550	55, 200
England	14, 400	17, 050	21, 150
Hamburg	16, 500	19, 000	18, 500
Antwerp	7, 200	11, 250	9, 000
Havre	44, 450	72, 950	58, 950
Bordeaux	2, 500	5, 700	6, 200
Marseilles	2, 150	5, 200	4, 550
Trieste	6, 500	8, 000	10, 850
Total	123, 850	190, 700	184, 400

The purchases of coffee in this market (Amsterdam) for or on American account, and exports of the same from this consular district to the United States, fell off very greatly since the higher prices for the article set in; the value of the shipments being represented by the amount of $497,302.93, from January 1, to June 30, whereas only $338,047.08 worth were shipped from July 1 to December 31.

In all, the value of the exports from here to the United States during the year 1886 foot up $835,350.01, the same having been represented by the sums of $682,570.19 in 1885 and $427,527.78 in 1884.

The fact that several American coffee-importing houses have sent and established their own representatives here, to attend the sales and make purchases and shipments, does not appear to be viewed with entire equanimity by some of the commission firms in the article at Amsterdam. They seem to consider it to be quite in the natural course of business affairs for houses which buy regularly, or frequently and largely, to have their own men here looking after their interests, but others, such as draw but casually supplies from this market, and then not in very great quantities, would, according to their say-so, do far better to intrust their orders to some reliable and well-known commission house here. All this, however, is, strictly speaking, "none of my business," and therefore I leave it to be considered and judged by those whom it concerns.

The markets of this country have during the year covered by this report proved themselves to be good and available for Americans in the coffee trade to sell in as well as to buy in. At any rate, if I am correctly informed, as I believe to be the case, there were considerable quantities of Macassar coffee brought from New York during the latter half of last year and disposed of at good and remunerative prices. Several consignments of Bintenzorgsche coffees, purchased by Americans in and shipped from Java, also came here, and were sold at good advantage to the owners.

In contemplated future undertakings of this description our coffee merchants and speculators in the article must not overlook the important circumstance that an upward movement or increase in the price of coffee, amounting to about 60 per cent., within about six months' time, as happened last year (June–December), is an occurrence quite out of the common, and almost unknown in the history of the coffee trade.

Another apparently noteworthy fact, relating to the [illegible] ports from here to the U[illegible]

The crop of 1885–'86 was considered a very good one for Java planters, excepting those of Middle Java and Preanger, amounting in quantity to about 300,000 bags, while the Government plantations yielded about 810,000 bags.

Reports from Java speak of the "leaf disease" as having greatly abated. But the crop prospects for 1887 are, on all hands, so far as Java is concerned, represented to be exceedingly gloomy. It is said that the heavy early rains have greatly damaged all second blossoms, and destroyed to a great extent the on-coming or young fruit of the first blossoms.

The Government, as I understand, has not published any estimate yet as to the probable outcome of the new crop, but from best-informed sources here I hear that it will hardly amount to much over one-half of the crop of 1886, notwithstanding that many new plantations will bring their first crop into the market.

THE SUGAR TRADE AND INDUSTRY OF THE NETHERLANDS IN 1886.

A prominent firm of brokers in sugar, at Amsterdam, and which generally publishes an annual trade review relating to the article, has, respecting transactions in the same during the year 1886, published only some tabular statements, showing the volume of the commerce, imports, and exports, &c., and price notations, and which appeared, laconically prefaced, as follows, viz:

We again deem it to be superfluous to furnish a detailed review of the sugar trade, and confine ourselves to giving only some statistics and figures, as below.

They will sufficiently indicate the commercial movement and the course of the prices during the past year, and it will require no further explanation from us in order to illustrate that, with imports reduced to a minimum, and thereby the almost entire export trade of colonial sugar lost, with the greatly diminished exports of "refined," and the temporary shrinkage of operations in our refineries, as consequences or results of the formidable competition of other enormously protected and exorbitantly bounty-fed sugar-producing countries and continued low prices, the sugar trade has been carried on under difficulties, and caused many of those therein engaged vexation and loss.

I might perhaps have assumed with equal propriety that the above sufficiently illustrates the conditions prevailing and surrounding the commerce, industry, and general sugar interests of Holland, particularly as the subject, in all its phases and as concerning the principally interested countries, has been for some years last past everywhere so extensively written about and discussed, but that so doing would not quite content me will be observed by what follows in this report, and more especially from the inclosure which accompanies it.

The inclosure here referred to consists of a communication on the subject under consideration, addressed to me by J. H. G. Ferman and J. Peelen, esquires, directors of the "Dutch Sugar Refinery," of Amsterdam, upon a request of mine to supply me some data or information on the sugar trade and industry of Holland in 1886, to be used in my report for said year.

I was greatly surprised to receive from them so full and interesting [illegible] reply, and which, being in the English lan- [illegible] purpose, I concluded

The high character and standing of the gentlemen from whom the inclosure herewith emanates, and their great experience in matters touching the sugar industry and trade of this country and of the sugar question in general, lead me to believe that their statements upon the subject, so far as they represent them as facts, are perfectly correct and deserving of the fullest confidence, and that whatever they state as mere matters of judgment or opinion is entitled to respectful consideration.

I would call particular attention to what is stated on page 7 of the inclosure and which has reference to or says "that there are rumors of the probability of the American sugar duties being abolished, and what, in such case, would be likely to be the effect thereof."

In this connection I am reminded of a remark made to me by a gentleman heavily interested in the sugar trade, which appeared to me to be even more suggestive than I found it to be facetious, and which I would venture to repeat in this place. He said:

It was certainly wisdom on the part of the American Congress to make tea and coffee duty-free; but tea and coffee never are, or will be, really sweet until sugar is added thereto. Do you think your Government will speedily take off the duty on sugar?

My answer was about to the following effect:

The present condition of the American national finances, or rather the state of our national Treasury, seems held to be such as to make it desirable or necessary largely to reduce our national revenues. This is likely to be brought about by Congress in one or another form, and if perchance the sugar duties should be abolished, and thereby many millions of dollars withheld from the United States Treasury, it should, and undoubtedly only will be done, if satisfactorily shown that these millions will stay in our country, will benefit the American consumer of the article, &c.

I conceived this to be a proper and as good an answer as I could make, but it did not quite meet the gentleman's approval, as he rejoined by saying "that I was a little too selfish, and that he hoped Congress would be more liberal." This led me to telling him that I always adhered to and acted upon the principle that it is the duty of a good citizen, be he an officer or legislator, to serve the world at large in such matters if at any time in his power, and whenever it can be done without being at the cost or to the injury of his own country, or fellow-citizens, but not otherwise. In this statement he acquiesced.

I shall make no further effort to enlarge on the subject of this report, as there remained altogether but little for me to say, unless I fell into the error of repeating some of the facts or figures, &c., contained in the inclosure herewith. I therefore conclude after adding the following few tabular statements, viz:

Destination of the exports of sugar from Java in 1885 *and during the first ten months of* 1886.

Whither exported.	1885.	1886.
	Piculs.	*Piculs.*
Netherlands	39,586	8,029
England and canal for orders	4,103,551	2,168,464
America	79,196	44,336
Australia	153,864	57,234
France, Mediterranean ports, &c	2,201,286	1,212,233
China	.....	312,872
Total		

Imports by, and the consumption of, beet-root sugar in the Dutch refineries in 1885 and during the first eleven months of 1886.

Description.	1885.	1886.
	Kilograms.	*Kilograms.*
Foreign product	101,750,000	74,000,000
Home product	15,500,000	22,000,000

Extent of beet-root sugar culture of Europe in 1885–'86 and 1886–'87, according to result and estimates of Mr. Licht, of Magdeburg.

Countries.	1885–'86.	1886–'87.
	Tons.	*Tons.*
Germany	825,081	950,000
France	298,407	500,000
Austria	377,032	525,000
Russia	537,860	475,000
Belgium	48,421	80,000
Netherlands, and others	37,500	50,000
Total	2,124,301	2,580,000

The following are comparative statements of price notations of sugar in 1885 and 1886, in the Dutch market, per 100 kilograms:

Months.	Java sugar (No. 14 basis).		Beet-root sugar.		Refined sugar.	
	1885.	1886.	1885.	1886.	1885.	1886.
	Florins.	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*
January	18¼	21 to 22	12 to 14	16¼ to 19	17½ to 19¼	20¼ to 23½
February	18¾	21 21½	13¼ 15	15½ 17¼	18¾	19 21¾
March	19	19 20	14⅝ 15¾	14⅝ 16	18⅜ 19	18⅜ 20
April	18½	19 20	14⅞ 16⅜	14¾ 16¼	19 21¼	19½ 20½
May	17¾	20 21	15¾ 20⅜	14 16	20 20¾	18 20½
June	22 to 23	18 19	18¼ 20½	12¾ 13¾	23 23¾	16⅞ 18¼
July		18 19	17 19⅛	13¼ 14¼	20¼ 22	17⅜ 18⅝
August	22½ to 23	18 19	17¾ 19⅝	13½ 14⅓	20¾ 23½	17½ 18½
September	24	18 19	18⅛ 20⅛	13½ 14⅝	23 24	17 18½
October		18 19	16¾ 19	12½ 13⅞	20¼ 22⅝	16¾ 17⅝
November	24	18 19	16½ 18⅛	12½ 13¼	19⅝ 22	17 17½
December	22½ to 23	17 19	17½ 19	13⅛ 13¾	20⅜ 21¾	
	22½ to 23	17				

AMSTERDAM, *January* 28, 1887.

SIR: Referring to our letter of 15th last month, we now beg to offer you, according to your wishes, some information as to the Dutch sugar trade during 1886, hoping they may prove available for your consular report covering said year.

In order to put away one of the impediments to the imports of cane-sugar from our own colonies (Java and Surinam) for refining purposes, a bill has been passed, on the 29th of August, 1886, which, leaving unaltered the figure of 1½ per cent. for waste on refining beet-sugar, allows 2½ per cent. on refining cane-sugar in lieu of the 1½ per [illegible] existed for the latter description up to said date.

[illegible] Dutch refiners had pointed out to [illegible] proved insufficient

depending on the allowance being raised quite up to the virtual waste on refining, but, above all, is coherent with our Dutch duty system to this effect, that Java sugar cannot get within the reach of the Dutch refiners as long as the actual duty system prevails or until the sugar duty is being repealed.

According to the official returns, the quantity of duty-paid raw sugar imported during 1886 amounted to 87,015 tons, supplied by the following countries, viz:

	Tons.
Belgium	42,034
Germany and Austria	40,566
United Kingdom	628
Java	439
Surinam	664
All other countries	2,684
	87,015
Further raw beet-sugar grown in the Netherlands	26,621
	113,636
The yield in loaf-sugar and bastards of these can be estimated at about	100 000

To which, adding loaf-sugar, candy bastard:

	Tons.	
The import of foreign refines in 1886	6,648	
The stock in bond of refines on ultimo 1885	9,163	
		15,811
		115,811

From which, deducting loaf-sugar, candy, and bastard:

	Tons.	
Exports of Dutch refines in 1886*	75,368	
Stock in bond of refines ultimo 1886	3,612	
		78,980
Balance		36,831

This represents our home consumption in 1886, being per inhabitant about 8⅜ kilograms (population of the Netherlands, 4,400,000).

Our imports of raw and refined and our exports of refined have been during the last years as follows:

Years.	Raw imports.	Imports of refined.	Exports of refined.
	Tons.	*Tons.*	*Tons.*
1885	139,382	4,624	80,801
1884	136,263	4,597	92,047
1883	121,222	2,797	72,146
1882	95,394	1,898	62,826
1881	107,623	.....	62,626
1880	113,884	.....	66,470
1879	104,638	.....	69,493
1878	106,005	.....	65,541
1877	102,154	.....	63,055

Up to the 1st of September, 1884, duty on raw has been levied according to its color; on said date this wrong system has been abolished and a more rational one introduced, based on the (assumed) real yield of raw. This yield was arrived at by analysis, the polarizations-degrees, less four times the ash and twice the glucose, indicating a theoretical yield, from which 1½ per cent. was deducted to cover the (assumed) waste on refining; the balance left being considered by the fisc to be the real factory-yield in white dry loaf-sugar, on which a duty is assessed of 27 Dutch florins per 100 kilograms.

On export a drawback is allowed to the same

other white dried goods, and for bastards proportionately lower. This system of taxation has, however, been much objected to by our refiners on account of, in many instances, the 1½ per cent. not being quite up to the waste incurred on refining, and of the coefficient four for ash not being sufficient (the trade allow five times). Their claims for better factors have, however, not been agreed to by the Government.

By the introduction of this system any bounty formerly existing has disappeared, and the proceeds collected from the sugar duty by our Government have considerably advanced. The revenue from this source was as follows:

[Duty, 27 florins per 100 kilograms loaf-sugar.]

Years.	Amount.	Assessment basis.
	Florins.	
1886	7,991,000	On polarization basis.
1885	7,860,000	
1884	5,847,000	On color basis.
1883	6,272,000	
1882	7,405,000	
1881	6,488,000	
1880	5,873,000	
1879	6,541,000	
1878	6,491,000	
1877	6,133,000	

In a note placed by your Department at Washington under your report of the Dutch sugar trade covering 1885, the observation has been made that there is a misapprehension in representing your Government to give a bounty on exported refines, only a drawback being allowed. The rectification is correct. However, if we see well, the very drawback (of 2.82 cents) included a large bounty, as the reduced one of 2.60 cents still leaves a fair benefit to your exporting refiners. To show this, we beg leave to submit to you the following calculations of the relative results of the drawback system in your country and ours.

The comparison is based on the Dutch drawback, being the right equivalent of the duty assessed on raw, and of course not leaving an export bonus whatever to Dutch refiners.

In both cases are taken 100 pounds beet-sugar, first runnings, containing 95.50° crystallizable sugar, 1°.15 ash, and 0°.00 glucose.

DUTCH SYSTEM.

Polarization	95°.50
Less 4 times 1°.15 ash	4°.60
	90°.90
Less neglected fractions (on an average)	0°.50
	90°.40
Theoretical yield	90°.40
Less 1½ per cent. for waste on refining	1°.35
	89°.05

Duty on 100 pounds raw of the above quality is settled by export of 89.05 pounds white, hard-dried, refined sugar (loaves, crushed, granulated, or any other shape). On sirup drawback is not allowed.

UNITED STATES SYSTEM.

Duty.

[illegible] per pound	$1 40
	82

Accordingly an export of 89.05 pounds white sugar (loaf, &c.) settles the refiners' debt for duty on 100 pounds raw, and, including his drawback on sirup, still leaves him a bounty of 9.35 cents per 100 pounds raw, equal to 10.52 cents per 100 pounds refined, or about 3½ per cent. of the actual value of sugar. A similar result the American refiner arrives at on melting, instead of "first runnings," "seconds," either cane or beet, not exceeding No. 13, Dutch color-standard, raw sugar upwards of No. 13 being unavailable for his use on account of its relatively high taxation.

If you wish us to exhibit the two latter cases, we are quite ready to do so; we here abstain from it, afraid of getting long-winded.

Although the reduced rate of your drawback has, to the benefit of American tax-payers, materially reduced the exportation of American refines, neverth eless it continues remunerative to your refiners, and, to put the drawback on a level with the Dutch one, 2.50 cents would do. Enabled by a drawback of 2.82 cents, American refiners delivered at less than the price of production in 1886 to British consumers about 75,000 tons, representing a boon of more than $500,000 tendered by the American nation to the United Kingdom; the imports of Dutch refines into the latter country during 1886 amounted to 53,267 tons, which, chiefly owing to the American competition, could only find buyers at unremunerative rates, and, although in the latter part of 1886 American imports have considerably declined, this falling off has been largely counterbalanced by supplies from Russia, Germany, Austria, and France; these countries are now racing, by means of export premium and at the expense of their respective tax-payers, as to whom the greatest loss will impart in supplying the British consumer with his sweetening commodity at less than cost-price. Of course, this race keeps prices down, and although raw frequently assumed an upward tendency, the improvement soon came at a stand-still, owing to the refined market continuing not paying to the refiners. On this account the margin between raws and refines on an average was insufficient to the Dutch refiners all the year round. The distance between the London prices of 88 cents raw beet sugar free on board, Hamburg and Dutch crushed (superior brands) in bags of 100 kilograms has been, on an average, as follows:

Years.	Difference per cwt.	Imports of American refines (about).
	s. d.	*Tons*
1883	5 6	6,000
1884	5 4½	62,000
1885	3 10½	115,000
1886	4 4½	75,000

In the last times rumors have circulated as to the probability of the American sugar duties being repealed; if so, it would prove of immense importance to the sugar-trade of the world.

Sugar freed of duty, the 60,000,000 inhabitants of the United States would in a very few years consume 2,000,000 tons a year, and largely in this way contribute to cure the "mal-aise," caused by the gigantic production of raw, far beyond the actual requirements.

Artificial support of the European Governments has led to this over-production; it is killing the industry which it was supposed to benefit, as the decrease of sugar-value cannot be counterbalanced by the most liberally-granted subsidy supportable for any budget. A great number of Russian and Austrian factories are ruined; German ones are unprosperous, Dutch and Belgian growers severely complain.

For the time it is the French sugar-makers only which are flourishing, an enormous bounty being granted them, their fisc leaving duty free, four out of the 10 kilos extractable from 100 kilos of roots. How long is this gleam of prosperity to last? The first step, although not the right one, has been made already to put a stop to it. In order to cure the sufferings of her treasury (chiefly owing to the sugar-subsidizing), France intends raising sugar duty with 10 francs per 100 kilograms (60 instead of 50) and the due sugar-yield with 1 per cent. (7 per cent. instead of 6 per cent.), but, on doing so, apparently drawback should be proportionately raised. Exports of refines must increase, and the amount of drawback get again larger, to this effect, that a considerable part of the higher duty would yield [illegible] consumers the [illegible]

The actual situation cannot be of long duration, we suppose, viewing at the distressed state of the European budgets.

The sugar question could be radically solved by universal abolishment of the sugar duty, but this revenue being indispensable to most states, the solution simply is impossible on this account.

We are perhaps slowly reaching the point, when the various countries interested can form a new drawback convention on the basis of a duty on the raw beet roots, with a drawback based on an assumed yield of, say, 10 per cent., this yield to be raised or lowered at stated intervals by mutual consent.

The above-mentioned "mal-aise" has also severely affiicted our sugar-growing colony, Java.

In order to assist the Java sugar industry (not the industrials) a bill has been voted by our Chambers, in December last year, purporting: Suspension during five years of the export duty of, say, 30 Dutch cents per 100 kilograms of sugar; suspension during five years of the land-tax, viz, to the amount of 50 per cent. in behalf of the growers on grounds belonging to the Government, and 100 per cent. on behalf of the growers on private grounds. These allowances are requiring an expenditure of 1,960,000 Dutch florins a year, or rather decreasing the colonial revenue with said sum or thereabout.

Estimating a Java crop at 375,000 tons, the relief amounts to 0.53 Dutch florins per 100 kilograms, equal to about 10 cents per 100 American pounds. The character of this assistance is by no means a protectional one.

Imposing export duties is an anachronism; they ought to have been repealed in our colonies long since, but under the prevailing circumstances a repeal has become most urgent, not only because export duty was a wrong and an injury to our Java sugar-growers, but also because it now is an impediment to holding their ground against the bounty-fed European sugars; its appeal of course is an act of justice and of wise economy.

For the Dutch Indian Government, being owner of the greater part of the areal under cultivation for sugar-growing, the continuance of the sugar factories is of immense importance; decay would disable tenants to pay their land-rent; its temporary sublation or reduction, to the contrary, may perhaps enable them to overtide the hard times now prevailing and to settle later on the due lease, including the one for which payment has now been deferred for five years, and, last not least, sugar-makers continuing at work, pauperism, discontent, and rebellion amongst the numerous Javanese population employed by the factories are being prevented to the very benefit of the Government and of the welfare of our colony.

We trust the above particulars will have some interest to you; if so, we shall be pleased at their getting mention in your consular report, especially the comparative results of the American and Dutch drawback systems.

If you wish us to give any further elucidations we are always quite ready to do so.

We are, sir, yours truly,

DE HOLLANDSCHE SUIKER RAFFINADERY.
J. PEELEN.
J. H. G. FERMAN.

D. ECKSTEIN,
Consul of the United States of America, Amsterdam.

THE DIAMOND INDUSTRY AND TRADE AT AMSTERDAM IN 1886.

Whilst diamonds have, and always retain, a certain intrinsic value, whilst their quality is not impaired by age, climate, or from other causes, and though they are a species of property which can, to almost any amount, be put away for safe-keeping so conveniently, yet it is claimed that the diamond industry and the trade in the article do not escape the mutations to which other industries and general commerce are always subject.

widespread effect, favorable or otherwise, upon and affects

on corresponding fluctuations in the prices of the rough and the finished goods.

In 1886 the importations of "rough stuff" were very large, but at the same time hardly in excess of the demand for "polished goods;" and prices were firm for the one as well as for the other, with ever rising tendencies, which became more especially pronounced during the last three months of the year.

To a certain extent the higher prices are ascribed to the fact that the principal diamond mines are more and more getting into the possession of incorporated bodies or companies, well provided with capital, and which can and do manage and regulate the product being brought into the market in such manner or in such quantities, from time to time, as to insure its commanding fair prices.

Formerly, when the mines belonged to fewer organized companies, but were the property of so many more independent individuals, the product came more irregularly into the market, which gave rise to transactions of a more speculative character, and which often proved dangerous, and sometimes fatal to those therein engaged.

It is also reported that operations in the diamond fields are now much more expensive than in the years gone by, and that this accounts in part for the advance in prices.

To give any estimate which would be even approximately correct as to the quantity of diamonds or their value, which in 1886, or in any one previous year, underwent the processes of cleaning, cutting, and polishing at Amsterdam, does not appear to be possible.

An estimate has, however, been handed to me, according to which about 20,000 carats of "rough goods" on an average per week, reached the hands of the manufacturers who own or control the large diamond works, and those who carry on the business on a small scale at home, during the year 1886.

These, when completely finished, vary in price or value all the way from about $4 to $55 per carat for the greater quantity, whilst some stones are always turned out which command very much higher prices.

The vast amount of capital represented by and invested in this industry and trade must not be considered as being altogether Dutch or Amsterdam capital, as a very large proportion of the goods manipulated here is owned in London and Paris, is sent here in the rough state by various large London and Paris houses, and returned to them after being completely finished.

The goods which belong to Amsterdammers and which are worked for and on account of the regular diamond merchants and others here, find to a goodly extent a market in the United States, particularly brilliants of best and choice quality and of good size and weight.

The chief markets in Europe which, in part, procure supplies of the article in question at Amsterdam are London, Paris, Berlin, Frankfort, St. Petersburg, Moscow, Rome, Naples, Barcelona, and Madrid.

Outside of Amsterdam and Antwerp the diamond industry is nowhere carried on very extensively. At Hanau, near Frankfort-on-the-Main, it is, as I understand, of some importance, and the diamond cutting and polishing there is almost exclusively for London account.

At Amsterdam and Antwerp the two [illegible]
ducted upon

Cash buyers are said to enjoy an advantage of at least from 4 to 6 per cent. on purchases made here.

The aggregate amount earned or paid in wages to the workmen in the different branches of the diamond industry at Amsterdam is represented to me to amount to about 7,500,000 florins, or $3,000,000 per annum, reckoned on the scale of last year's operations.

From this sum must, however, be deducted the rather considerable amount of expenses which are incurred by polishers for use of moving-power, and for the privilege of plying their trade in the diamond factories, or which they incur, in many cases, at their homes on the same account.

To obtain the true figures of the number of persons engaged in producing the finished brilliant out of the rough diamond is extremely difficult, as a great many cleavers and cutters as well as polishers work at their homes.

The only estimate I could procure states that it may safely be assumed that from 7,000 to 8,000 individuals are at the present time interested here, in one way or another, in the industry under consideration, and in the business of purchase and sale of rough and finished goods.

The wages paid to or earned by the various classes of workmen, or for cleaving, cutting, and polishing, have been on a downward scale for the last five years or so, and this is chiefly attributable to the constant increase in the number of workmen, which would show that the inexorable law of demand and supply exerts itself in this case as well as in others.

As it is not very hard to learn one or the other of the processes of the trade, and as under anyways favorable circumstances the diamond workers, generally and comparatively, find themselves somewhat better situated than workmen in other trades, there appears to be a never-ceasing accession to the number of apprentices. If this continues to be the case much longer there would seem to be but poor prospects for them in the near future; and this the more so as there exists amongst the diamond workmen here no recognized organization, and as they are, up to the present, nearly defenseless against the manufacturers.

The above remark, based upon the written statement of one of the principal manufacturers here, seems noteworthy on that account, and, further, because it is so entirely contrary to the at present almost every-where prevailing order of things.

The exports of diamonds from Amsterdam to the United States, in so far as their value is known to me through the certification of invoices at this consulate, amounted to $1,378,542.78 in 1886; to $347,527.33 in 1885; to $262,402.39 in 1884; to $227,763.86 in 1883; and to $397,865.11 in 1882.

The above figures are, however, far from representing the actual value of all the diamonds which have been in either one of those years purchased by Americans or for their account, and which have been [illegible] New York and to other places in the United States. [illegible] large sum annually, invoices are [illegible] the goods are

I have on several occasions called the Department's attention to this matter, where it was considered and promptly acted upon, but it appears that it will require the adoption of more stringent measures than have hitherto been employed if the practice in question is to be suppressed.

FINANCES OF THE NETHERLANDS, 1886.

The conversion of the 4 per cent. national debt of the Netherlands, which took place in the course of the year 1886, had for a long time previous to the occurrence been held in view or contemplated by the Government, which was only waiting for a favorable opportunity for the accomplishment of that object.

Consequently, when the rate of interest became everywhere very low, and when it appeared that a money plethora would set in for a long period of time, the matter of "conversion" was earnestly taken in hand and discussed by the finance department. One of the two groups or combinations of bankers which then appeared upon the scene and offered, upon certain terms, to undertake the transaction, consisted of the prominent banking house of Lippmann, Rosenthal & Co., which proposed to associate itself with the Rothschild frères, in Paris, N. M. Rothschild & Sons, in London, and M. A. von Rothschild & Sons, in Frankfort-on-the-Main, and to take upon themselves the entire conversion of about 340,000,000 florins of the 4 per cent. national debt at the rate of 97 per cent. against the to be emitted 3½ per cent. Government bonds.

This proposition was approved by the Rothschild houses, and in accordance therewith a preliminary agreement was entered into in the month of February, 1886, between the minister of finance and the agent of the Rothschilds in this city, and George Rosenthal, esq., for and on behalf of his firm of Lippmann, Rosenthal & Co., subject to the approval of both Chambers of the States-General, and the subsequent sanction of the King.

This arrangement caused a certain amount of ill-feeling and opposition to its consummation from certain quarters, and chiefly on the ground of its being made with the Rothschild houses, who are foreigners.

However, the agreement seems to have been looked upon as advantageous to the country and satisfactory to the members of both Chambers, as a bill based thereupon was passed, with very slight modifications, on the 9th of May, 1886, with very large majorities in both Chambers, and being speedily thereafter approved by the King, became law.

The contract, thereafter in force, was soon afterwards carried into effect by the Messrs. Rothschild. The owners and holders of 4 per cent. bonds received notice that within fourteen days they had to declare themselves whether they desired payment at par. Those who allowed that term to pass without requiring such cash payment received a premium of 2 per cent. in cash, and the 3½ per cent. new emission at the rate of 98 per cent. Only about 1,000,000 florins of the 4 per cent. debt was asked and required to be paid back. The entire balance, or about 339,000,000, of the 4 per cent. debt was converted into the new 3½ per cents.

The contractors took care that the 4 per cent. old bonds, which they came into the market in large

The deliveries for conversion took place so quickly that at the end of November only a very small proportion of the old 4 per cent. issue remained outstanding for exchange.

The new rate of interest, 3½ per cent., went into force on the 1st of July, 1886.

The Government issued paid-up scrips, which are soon to be exchanged for the new obligations.

The denominations of the new bonds are 12,000, 6,000, 1,200, 1,000, 500, and 100 florins, with interest coupons attached, payable half-yearly, 1st of April and 1st of October. The interest is payable not only in Holland, but provision is made for its payment at Paris, London, Berlin, and Frankfort-on-the-Main.

The Government has assumed the obligation not to convert the new 3½ per cent. debt during the next ten years.

It is generally considered here that the conversion of the Dutch 4 per cent. national debt is one of the most successful and promptly perfected financial operations which have taken place in Europe latterly.

THE NATIONAL DEBT.

The national debt of the Netherlands consists of:

	Florins.
(1) Inscriptions in the Public Ledger (*Grootboek*) of the 2½ per cent. national debt to a nominal capital of	630,593,300
(2) Inscriptions in the Public Ledger of the 3 per cent. national debt to a nominal capital of	94,642,850
(3) Inscriptions in the Public Ledger of the 3½ per cent. national debt and 3½ per cent. obligations, issued in accordance with the law of May 9, 1886, Staatsblad No. 102, together representing a nominal capital of	348,085,000
(4) Three and one-half per cent. obligations of the late Amortization Syndicate, to a nominal capital of	9,243,000
Total	1,082,564,150

On the entire national debt the annual interest amounts at present to 31,104,723 florins.

REVENUE AND EXPENDITURES.

The estimated national revenue amounted for 1885 to 115,764,176 florins, and for 1886, to 120,149,065 florins; and the estimated amount of national expenditures was 135,614,355.875 florins in 1885, and 132,543,648.935 florins in 1886. This shows that in both years the expenditures exceeded the revenues; the deficit amounting to 19,850,179.875 florins in 1885, and to 12,394,583.935 florins in 1886.

According to a statement before me, and which I suppose to be correct, the appropriations for the national service of the current year (1887) are as follows:

	Florins.
Royal household	660,000.00
State establishments and royal cabinet	616,007.00
Department of foreign affairs	681,151.00
	5,059,759.00
	10,183,018.00
	[illegible]

The estimated revenues for same period of time amount to 115,973,075 florins, and it is thereby shown that the expenditures exceed the estimated revenues in the sum of 10,247,022.35½ florins. Besides that, under some existing law, provision remains still to be made for the maintenance of the navy from July 1 to December 31, 1887.

BANK OF THE NETHERLANDS.

The following are summarized statements showing the status of this financial institution on given days during the year 1886, and the rates of exchange on same days and year at Amsterdam:

Date.	Portefeuille and Lombard, or advances on diverse securities.	Gold.	Silver.	Rates of exchange.		
				London (per pound sterling).	Paris (per 100 francs).	Germany (per 100 rix marks).
	Florins.	*Florins.*	*Florins.*			
January 2	97,000,000	48,000,000	96,000,000	12.05	47.75	59.10
April 30	70,000,000	72,000,000	98,000,000	12.06	47.80	58.95
June 30.....	67,000,000	77,000,000	98,000,000	12.05	47.75	59.05
July 31	63,500,000	80,000,000	98,000,000	12.06	47.85	59.15
August 28 .. .	59,000,000	80,000,000	97,000,000	12.09	47.87½	59.10
November 6 ..	77,000,000	79,000,000	97,000,000	12.12	47.80	59.10
December 24..	86,000,000	67,000,000	97,000,000	12.09	47.72½	59.25

AMERICAN SECURITIES.

All that is stated under this caption consists of a verbatim translation of a communication requested of and received by me from a prominent firm here extensively engaged as agents or factors in American railway and other stocks:

The Dutch public have every cause to be satisfied with the results, from a financial point of view, of the eventful year 1886. The preceding year had made rather large breaches in the invested capital in this country, and if those wounds, as far as they were not in some way connected with the deplorable state of affairs in the Dutch Indies, have been partially healed, this is mostly due to the extensive holdings in American securities, which, as far as the purely speculative securities and shares are concerned, could be disposed of at highly remunerative prices in the course of the year.

As is usually the case, the period of uneasiness (*malaise*) and the downward course and collapse of quotations did not fail to raise a general outcry against the untrustworthiness of "American papers," but they did not prevent the purchases being steadily continued, with a view either to get a lower average for securities bought at higher prices or to create new positions for the rise.

The Dutch in this respect are possessed of a rare pertinacity, the success of which is facilitated by their considerable moneyed power, and the result was this time, as it has been so often already, a good one.

For some time since these cheaply-bought securities are being gradually di posed of, and in this manner the country has been enriched with a considerable sum of money.

The bond market is differently circumstanced. American railroad bonds have been since a series of years a common investment here, and long before English or German capitalists, frightened off by the crisis of 1873, took courage to give again attention to them, millions of money were earned here by the surplus interest alone, compared to the low rental of such European securities as had a reputation of solidity. In some cases there were errors made, of course, and times

There was, for instance, the mania of conversions: Government converted, every town and townlet thought necessary to follow its example, and many a capitalist was compelled, not to have his income diminished more than he could afford, to take to securities of inferior quality but bearing a higher interest. Besides, the uncertain political situation in Europe induced many to invest their capital in America, which has nothing to fear from European difficulties and in the long run can only profit by them.

Consequently, upon the low price of money both in America and here, the prices of first-class railway bonds had risen considerably, so that these for some time already did not yield as much interest as before, and were not in request any more for investment. Under these circumstances it is easily to be accounted for that bonds of a slightly speculative character, but yielding a satisfactory interest, found a ready reception here; thanks, however, to the enormous progress and development everywhere in America such investments have proved very profitable.

In the mean time the construction of so many new lines of road, especially west and south of Chicago, is viewed here with some distrust, as it is feared that the competition which these constructions are sure to create must finally lead to renewed tariff-wars, the fatal consequences of which have been so deeply felt here.

But on the other hand it is considered that these constructions are not undertaken, as formerly, by feeble companies, but by very powerful ones, who are able in case of need to maintain the new lines for a considerable time out of their own purse; so that at the worst a reduction of dividends is to be expected, and that in a country which, like the United States, has such enormous resources to fall back upon, and is not overweighted by surplus population and military charges, in many respects some greater risk may be taken than in our overburdened and politically much and constantly menaced Europe.

PETROLEUM IN HOLLAND IN 1886.

From a printed statement before me, which I believe to be entirely correct, though it is not official, but published by the prominent firm of M. & R. De Mouchy, of Rotterdam, I observe that the consumption of petroleum in Holland has further increased by about 36,000 barrels in 1886 as against 1885, and that its increase has been steadily in progress for a number of years last past, the same having amounted to but 315,000 barrels in 1878, whilst about 542,000 barrels have been consumed in this country in 1886.

But it is not owing so much to the increase in the consumption of the article as to that in the re-exportation of the same, that the trade therein has been so progressive during the past year. This refers more particularly to the port of Rotterdam, where formerly existing great obstacles to the convenient and cheap approach to the city are said to have been entirely obliterated, and where the new water-way now affords ample facility for vessels of almost any draught to come with full cargoes up to the wharves of the port without difficulty.

As a part of the result of the improvement in this respect it is claimed that the petroleum trade increased as it did last year, so that the imports amounted to nearly 600,000 barrels, of which about 55 per cent., or nearly 300,000 barrels, were re-exported.

It is even stated that the setting in of so considerable and sharp a competition against Bremen, Hamburg, and Antwerp in handling the article in question, or so much of it as is calculated to reach German markets, is now attracting general attention at those ports and has induced the German Government to reduce the freight rates for the transcertain Government railways favor and pro-

There are many indications which would let it appear that Rotterdam's prospects for a still and much further extension of this trade are very good. The situation of its harbor and its Rhine connections are such as to justify expectations that petroleum in greater quantities than ever will in the near future find its way to the interior parts of Germany by way of Rotterdam.

The imports and deliveries at Amsterdam in 1886 also increased immensely, but more on account of greater demand for the domestic consumption than for re-exporting purposes. The imports here, which were only 133,000 barrels in 1878, and had reached 208,000 barrels in 1885, ran up to 317,952 barrels last year.

Amsterdam's present condition is in certain but important respects less favorable than Rotterdam's, and this seems to be chiefly owing to imperfections in the marine works at Ymuiden, the harbor and locks, and its defective water communication with the Rhine.

However, all this will be remedied some day, not, perhaps, in the near future; but when the time shall have arrived it will, unquestionably, bring with it an amount of maritime and commercial progress such as would seem should stimulate its people to the utmost exertions to prevent its being put off.

It is represented that although the trade here last year was larger than ever, importers and speculators did not do a lucrative business. The price at the beginning of the year was 9 florins per 100 kilograms, receded all the way to $7\frac{1}{2}$ florins, and closed at about 8 florins.

For spring deliveries here petroleum is offered at about $7\frac{3}{4}$ florins. This price is held to be very low, but it is said that whilst the contest between the American and Russian producers will last higher prices are improbable.

A Rotterdam report says:

> Russia makes powerful exertions to conquer a share of the European consumption, but so far the Russian oil meets with but little favor in this neighborhood.
>
> In different ports the "tank system" is being introduced, and several "tank-steamers" are running, but this system is, as yet, too much of a novelty to judge or decide whether this "trade without barrels" will satisfy the cherished expectations.

Opportunities to build "tanks" here (Rotterdam) are amply on hand, but the importers are not yet inclined to join this "new method," particularly as the manipulations connected with the gluing and filling of barrels, and cost thereby caused, cannot yet be satisfactorily calculated.

In this place I have to refer to my dispatch No. 531, of the 23d of September last, by which I informed the Department that at Amsterdam rather extensive preparations were being made, which had for their object the introduction and sale of Russian petroleum in this country.

I also described in the said dispatch of what the said preparations consisted, stated that the petroleum was intended to be imported in tank-steamers, and that the first consignment was expected to arrive in October or November last.

I have now to report that up to the present no tank-steamers with Russian oil have come here, on account, as explained to me, of certain unavoidable delays in completing the reservoir and other works intended for its reception and handling it.

According to an article

The matter shall continue to receive my attention, and anything interesting or noteworthy and relating thereto will be reported.

Consumption of petroleum in Holland.

Year.	Barrels.	Year.	Barrels.
1886	542,000	1881	385,000
1885	506,000	1880	360,000
1884	505,000	1879	325,000
1883	470,000	1878	315,000
1882	425,000		

Import and deliveries of petroleum at Rotterdam and Amsterdam, each year, from 1878 to 1886, inclusive.

Years.	Rotterdam.		Amsterdam.		Years.	Rotterdam.		Amsterdam.	
	Imports.	Deliveries.	Imports.	Deliveries.		Imports.	Deliveries.	Imports.	Deliveries.
	Barrels.	*Barrels.*	*Barrels.*	*Barrels.*		*Barrels.*	*Barrels.*	*Barrels.*	*Barrels.*
1886	*594,610	*557,088	317,952	316,202	1881	193,235	204,000	196,329	205,924
1885	357,102	395,345	208,000	237,000	1880	215,071	206,466	217,051	194,414
1884	234,515	233,413	265,000	252,000	1879	189,850	199,880	150,209	156,379
1883	194,736	221,011	211,300	235,353	1878	219,293	215,872	133,633	110,326
1882	292,690	232,000	189,573	180,877					

*These imports include about 27,000 barrels landed at Vlissingen, and about 29,000 barrels delivered at that port.

OLEOMARGARINE IN HOLLAND IN 1886.

The American share in the trade and consumption or use of "margarine" in artificial butter-making in Holland continues to be an important interest, which it would seem to behoove our manufacturers of the article to guard and foster most carefully if they desire to retain or enlarge it, as the oil is now produced in ever-improving qualities in Austria, Hungary, France, and Russia, from all of which countries it is said to be imported into Holland in apparently increasing quantities.

As to the quantity imported from the United States in 1886, I have consulted a number of printed and written statements emanating and received from parties prominently identified with transactions in margarine, but hardly any two of them agree thereon. The lowest estimate I have seen puts the imports of last year at 114,000 tierces, and the highest at 121,480 tierces, or about 18,300,000 kilograms.

In the absence of any official records being kept or statistics on the subject published, I am unable to determine what really are the true and correct figures representing the imports during the past or any one previous year, or whether they increased or decreased in 1886 as against the preceding year or years.

[illegible] the quantities of European margarine which found their [illegible] any given previous period, it can [illegible] but that *it is*

as their real extent can never be correctly ascertained. The business in European goods is too much cut up, or, in the first place, in the hands of too large a number of agents, none of whom handle large quantities. Besides this, there are a number of Parisian, Vienna, Buda-Pesther, and Russian oil manufacturers who have standing contracts with butterine manufacturers in Holland, to whom their product is shipped, but it never comes upon the market, and it is therefore unknown how much margarine goes from Paris, Russia, &c., direct to factories in Holland.

The year's (1886) result of the trade in margarine has been more or less satisfactory to importers, dealers, speculators, and consumers, as during most of the year the demand has been very regular.

The prices of the article are generally and principally regulated by demand and supply, and it is said to be difficult to explain the reasons or causes which brought about the great fluctuations therein in the course of the past year.

Best or prime American brands commanded about 55 florins per 100 kilograms in January, 1886, went up to about 61 florins in the fore part of March, and receded again quite unaccountably to about 45 florins in the middle of April. This gave rise to large purchases by speculators and butter manufacturers, who were further thereto induced by the excellent qualities of the various brands.

The eagerness to purchase at such low rates naturally exerted its influence very quickly, so that the class of goods in question soon fetched as much as 62 florins. Subsequently, and for a certain period, they fluctuated between 48 and about 58 florins, but at about the end of September, when stocks of fine qualities ran quite low, and the demand being considerable, as much as 72 florins was paid, and in the following month sales took place at even 82 and 84 florins per 100 kilograms.

At about that time buyers drew back, and holders of the article were soon obliged to accept again, say from 65 to 67 florins, which prices ruled and were regarded as about the value of the best prime brands of American oil at the close of the year.

The prices for inferior qualities ranged about as follows, viz: Opening prices in January, about 40 florins per 100 kilograms, reached their lowest level latter part of March, when they were quoted at about 25 florins; their highest mark in October, when they were sold at about 52 florins, and closed at the end of the year at 45 florins.

Concerning the quality of the American margarine, I see it remarked that some of the brands, especially Harrison, Salzberger, Nelson, Morris, and now and then Armour and Lincoln, arrived in Holland regularly throughout the year in most excellent condition, which formerly, and particularly during the summer months, was not always the case. As peculiar and noteworthy facts are pointed out, that "oil" of the brand "Harrison" was sold in the month of April at the unprecedentedly low figure of 45 florins per 100 kilograms, whilst goods of the same brand fetched as much as 80 florins, in October, and brought as high a price as any American brand at the end of the year; and, further, the entire absence of any stock on hand at the end of last December, as against 25,000 to 30,000 tierces stated to me to have remained undisposed of in the market at the same period of 1885.

But, as represented to me, these are features peculiar to the "margarine" trade, which nearly every year has certain curious surprises in store.

NORWAY.

Report of Consul Gade.

From the tables on the foreign trade of Norway for the year 1885, published a few months since by the central statistical bureau at Christiania, it appears that the total value of the commerce between the United States and the Kingdom of Norway during the said year amounted to 7,770,700 kroner, equal to $2,082,548, of which 7,363,300 kroner, or $1,973,364, represented the imports from the United States, and 407,400 kroner, or $109,183, the exports from Norway to the United States. Against these figures we find the following:

Years.	Imports.	Exports.	Total.
	Kroner.	*Kroner.*	*Kroner.*
1884	6,432,700	304,100	6,736,000
1883	6,185,700	306,900	6,492,000
1882	2,569,900	166,500	2,736,400
1881	2,980,900	46,800	3,027,700
1880	1,900,500	164,600	2,065,100

We see a rapid and considerable development of the commercial transactions between the United States and Norway, due principally to the direct line of steamers established in 1882 between this country and the port of New York. All the foregoing figures, taken from the official Norwegian returns, give, however, an incorrect estimate of the commerce which has gone on between the two countries. The customs returns in Norway give only the direct shipments from the United States as imports from America, and consequently no inconsiderable part of the imports put down in the tables under the heads of Great Britain and other countries actually belong to the imports from the United States. On the other hand several important Norwegian export articles, particularly fishery products and wood pulp, have often been shipped *via* English ports, and are accordingly set down as exports to Great Britain.

In examining the invoice book of the consulate I find that the value of the declared exports to the United States from this consular district alone amounted in 1885 to 341,350 kroner, or $91,481, a sum almost equal to the total value of the exports from the whole of Norway according to the official returns. As the exportation of all kinds of fishery products to the United States was considerable from the consular district of Bergen in 1885, I would estimate the aggregate exports from Norway to America at about 800,000 kroner, or $214,400. Considering [illegible] goods *via* England and Germany, Norway in 1885 may

tion of quantities (weights) and values, as given by the Norwegian statistical returns:

Imports from and exports to the United States in 1885.

IMPORTS.

Articles.	Quantity.	Value.
		Kroner.
Salted beef and pork ..... kilograms..	3, 810, 804	2, 247, 500
Butter ..... do	228, 810	297, 500
Wheat ..... 100 kilograms..	7, 216	102, 500
Wheat flour ..... do	6, 670	126, 700
Other grains—maize ..... do	16, 814	176, 900
Sugar ..... kilograms..	227, 240	71, 400
Sirup ..... do	2, 237, 490	380, 400
Tobacco ..... do	129, 457	162, 100
Fruits, vegetables ..... do	60, 358	26, 700
Cotton ..... do	438, 760	421, 200
Manufactures of metal ..... do	11, 200	19, 500
Leather ..... do	1, 039, 420	1, 975, 300
Petroleum ..... do	7, 087, 720	1, 013, 500
Manufactures of wood ..... do	100, 000	106, 400
Sailing vessels ..... register tons..	1, 266	63, 300
Locomotives and machinery	.....	106, 900
Carriages, instruments, and watches	.....	24, 800
Sundries	.....	40, 700
Total	.....	7, 363, 300

EXPORTS.

Horses		5	300
Dried fish (stockfish)	kilograms..	138, 770	53, 700
Herrings	hectoliters..	5, 933	63, 600
Other fish (anchovies)	do	633	15, 300
Other animal food (cheese)		.....	11, 700
Cod liver oil	hectoliters..	572	31, 200
Wood pulp:			
Dry	kilograms..	7, 000	207, 600
Moist, 50 per cent. water	do	3, 759, 900	18, 300
Books		2, 819	5, 700
Sundries		.....	.....
Total		.....	407, 400

The director of the statistical bureau gives in his introduction to the tables on the trade of Norway in 1885 an interesting general review of the condition of trade in that year. I beg to submit an extract of this review:

The aggregate weight of the merchandise sold between Norway and foreign countries in 1885 was reported to be 3,071,000,000 kilograms, of which 1,422,600,000 kilograms were imports, and 1,648,400,000 kilograms exports.

The total value of the foreign commerce was estimated at 247,500,000 kroner, of which the imports represented a value of 145,600,000 kroner, and the exports 101,900,000 kroner. Of the latter 4,200,000 kroner were re-exported foreign products.

The following comparative statement shows the weight and value of the Norwegian foreign trade for the last ten years:

Year.	Weight.			Value.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	Kilograms.	*Kilograms.*	*Kilograms.*	*Kroner.*	*Kroner.*	*Kroner.*
1876	915,700,000	1,426,500,000	2,342,200,000	167,400,000	118,100,000	285,500,000
1877	1,182,500,000	1,367,700,000	2,550,200,000	189,800,000	109,100,000	298,900,000
1878	963,200,000	1,262,400,000	2,225,600,000	140,400,000	91,600,000	232,000,000
1879	951.200,000	1,182,100,000	2,133,300,000	132,200,000	89,200,000	221,400,000
1880	1,069,100,000	1,454,100,000	2,523,200,000	150,900,000	108,700,000	259,600,000
1881	1,167,600,000	1,583,200,000	2,750,800,000	165,000,000	120,900,000	285,900,000
1882	1,224,400,000	1,678,000,000	2,902,400,000	160,500,000	122,900,000	283,400,000
1883	1,303,300,000	1,695,900,000	2,999,200,000	161,300,000	116,100,000	277,400,000
1884	1,327,100,000	2,102,900,000	3,430,000,000	158,800,000	112,200,000	271,000,000
1885	1,422,600,000	1,648,400,000	3,071,000,000	145,600,000	101,900,000	247,500,000

The foregoing figures show that the quantity, or weight, of the merchandise sold between Norway and foreign countries, which had rapidly and continually increased during the year 1879–'84, did fall off a little in 1885 from the preceding year, though equal to any of the previous years. Relating to the imports the increase went on also in 1885, chiefly owing to the increasing consumption of coal. The quantity of exports appears on the other hand with much smaller figures than in 1884, which is principally owing to the circumstance that the exportation of ice, which, in 1884, had increased exceptionally, did, in 1885, shrink to the usual quantity. The exportation of lumber in 1885 was also somewhat smaller than usual. Of ice a decline of 393,000 tons (1 ton=1,000 kilograms), and of lumber of 78,000 tons is noticeable, while an increase of 17,000 tons appears in the other export articles.

The value of the foreign commerce in 1885 shows the considerable decrease of 32,000,000 kroner, or nearly 11½ per cent. in the average value of the commerce for the past four years. As compared with 1884 the decrease of the imports was 13,200,000 kroner, and of the exports 10,300,000 kroner. This falling off is chiefly due to the decline of the prices of many articles.

The balance of trade in 1885 was not favorable to Norway. The of the imports exceeded by 43,700,000 kroner the value of the exports, a deficit hardly covered by the revenue of the shipping. The gross income of this industry was, in 1882 and 1883, estimated at over 100,000,000 kroner, but fell off in 1882 and 1884 to 80,000,000 and 93,000,000, and in 1885 to 85,000,000. About the half of the latter sum was probably the net profit of the shipping of the year. In addition to this it must be borne in mind that Norway pays annually large sums to foreign countries as interest of public loans contracted by the Government, the Landed Bank, and her communities. The two former alone have to pay about 6,500,000 kroner annually as interest of loans. Some few items may, perhaps, reduce the unfavorable balance of trade, and the foreign tourists, and estimated at nearly 5,000,000

IMPORTS OF CEREALS.

Amongst the principal imports the cereals come first in importance. The importation of these articles was as follows:

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	Hectoliters.	*Kroner.*		*Hectoliters.*	*Kroner.*
1880	3,102,000	37,410,500	1883	3,439,000	34,678,500
1881	3,409,000	41,840,700	1884	3,370,000	31,669,100
1882	3,199,000	33,138,300	1885	3,778,000	31,396,000

The period of 1876–'80 showed an annual average importation of grains of 3,433,000 hectoliters, of value 36,900,000 kroner, and the period of 1881–'85, 3,439,000, of value 34,550,000 kroner. The quantity imported in 1885 exceeds thus considerably the consumption of an average year, but the value of the imported grain was much less than usual owing to the very low prices. The average price of rye, the principal kind of grain, was, during the years 1876–'80, estimated at 16 kroner per 100 kilograms (the grain delivered in Norwegian ports), but in 1885 the price was quoted as 10.80 kroner, or about 32 per cent. lower. As the country in 1885 imported about 174,000,000 kilograms of this kind of grain it appears that they saved about 9,000,000 kroner by the decline in the price of this sole article.

IMPORTS OF MANUFACTURED ARTICLES.

Next in importance to cereals comes the large class of goods which is styled manufactured or dry goods. We find that the imports of this class were as follows:

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	Kilograms.	*Kroner.*		*Kilograms.*	*Kroner.*
1880	4,800,800	23,707,500	1883	5,840,200	24,339,100
1881	5,504,400	25,997,100	1884	6,501,500	26,265,900
1882	5,759,700	26,925,400	1885	6,039,000	22,496,900

The quantity of these goods steadily increased during the years 1880 to 1884, while 1885 shows a slight decline as compared with the previous year. The value, which in 1874 had reached 33,400,000 kroner, the importation being 6,000,000 kilograms, has on the other hand since then fallen off considerably. This can be accounted for not only by the far higher prices of these articles during that period but also by the fact that the consumption of more expensive goods was then much larger. The average value of 1 kilogram of dry goods has fallen off from 5.50 kroner in 1874 to 4.94 kroner in 1880; from 4.04 kroner in 1884 it went down to 3.73 kroner in 1885.

The importation of groceries or colonial products, which are next in rank among the imports, was as follows:

Year.	Quantity	Value.

Relating to the quantities of the imports, we see that they were on a general increase until 1885. The prices had, on the other hand, gone down so much that the value of the groceries imported had not for many years been so low as in 1885, when it only amounted to 14,600,000 kroner against 20,200,000 in 1871–'75,26,000,000 in 1878, and 18,500,000 in 1878–'81.

The importation of some important articles of this class during the last five years was as follows:

Articles.	1881.	1882.	1883.	1884.	1885.
	Kilograms.	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Coffee	7,603,000	6,993,000	7,994,000	7,372,000	7,910,000
Sugar	9,393,000	10,223,000	10,981,000	12,896,000	9,329,000
Sirup	4,957,000	4,972,000	5,458,000	5,663,000	4,344,000
Tobacco leaves	1,928,000	1,714,000	1,761,000	1,918,000	1,995,000

The importation of coffee was in proportion the largest in 1885, but sugar and sirup show a great falling off.

Next to the foregoing classes of imports come two other classes of articles, viz, provisions and hardware, each class representing a sum of from 10,000,000 to 12,000,000 kroner. Among the former, beef, pork, and butter are the chief articles.

Norway produced once herself more than sufficient beef and pork, and about the year 1850 she only needed annually to import 500,000 kilograms of these articles from foreign countries, but lately the importation has been as follows:

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	Kilograms.	*Kroner.*		*Kilograms.*	*Kroner.*
1881	6,935,400	4,883,600	1884	5,744,000	3,577,100
1882	4,797,500	3,648,400	1885	7,466,000	4,310,000
1883	6,996,700	5,105,200			

The country needs, accordingly, under ordinary circumstances, a supply from abroad of 6,000,000 or 7,000,000 kilograms of meats. The imports were larger during the years 1877 to 1879, viz, 8,000,000 or 8,500,000 kroner, which can be accounted for by the extensive railroad building then going on.

The imports of butter have during the last years increased a little in quantity but decreased in value. The importation was:

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	Kilograms.	*Kroner.*		*Kilograms.*	*Kroner.*
1881	3,511,200	5,969,000	1884	3,467,000	5,027,000
1882	3,599,400	6,119,000	1885	3,789,000	4,925,000
1883	3,599,400	6,119,000			

The value of iron and hardware imports in 1885 amounted to 10,593,000 kroner, of which 5,364,000 kroner represent raw and half manufactured metals, and 5,229,000 kroner manufactured metals. In the former class pig-iron, steel, bar-iron, and sheet-iron come in for 3,651,000 kroner, and a weight of 33,077 tons, against 29,368 tons in 1882, and 18,578 tons in 1880. Pig-iron had fallen off from 19,000 tons in 1877 to 10,395 tons in 1885, but the imports of bar-iron and sheet-iron, respectively 16,217 and 5,606 tons, were quite as large as in any previous year, 1883 excepted.

The imports of brandy and spirits have fallen off considerably during the last years, and the exports have at the same time increased so much that they even exceeded the imports during the years 1879–'83. The following table will show the proportion between the imports and the exports of these articles:

Years.	Imports.		Exports.		Increase + or decrease— of imports of 50 per cent. strength.
	Brandy and spirits.	Brandy and spirits calculated of 50 per cent. strength.	Brandy and spirits.	Brandy and spirits calculated of 50 per cent. strength.	
	Liters.	*Liters.*	*Liters.*	*Liters.*	*Liters.*
1876	4, 195, 000	6, 460, 000	34, 000	34, 000	+6, 426, 000
1877	3, 291, 000	5, 052, 000	16, 000	16, 000	+5, 036, 000
1878	2, 226, 000	3, 392, 000	577, 000	894, 000	+2, 498, 000
1879	922, 000	1, 213, 000	1, 870, 000	2, 783, 000	−1, 570, 000
1880	848, 000	1, 085, 000	782, 000	1, 163, 000	−78, 000
1881	875, 000	1, 109, 000	1 655, 000	2, 496, 000	−1, 387, 000
1882	823, 000	1, 000, 000	774, 000	1, 102, 000	−102, 000
1883	880, 000	1, 102, 000	856, 000	1, 247, 000	−145, 000
1884	913, 000	1, 154, 000	549, 000	813, 000	+341, 000
1885	854, 000	1, 039, 000	492, 000	768, 000	+271, 000

The home production was, in 1875, 5,244,000 liters, and rose gradually until 1879, when it reached 7,762,000 liters. Since then it has again fallen off, and was, in 1885, 6,569,000 liters. The domestic consumption of brandy during the last year was estimated at about 6,340,000 liters, or 3.3 liters per each individual, which is a trifle less than the average figure for the previous four years.

The importation of illuminating oils (petroleum and paraffine oil) was very large in 1885, viz, 10,417,000 kilograms, though it did not reach the figure for 1884, which was the largest year in this trade.

The domestic consumption of this article was as follows:

Years.	Quantity.	Years.	Quantity.
	Kilograms.		*Kilograms.*
1878	5, 853, 000	1883	8, 831, 000
1881	8, 087, 000	1884	9, 783, 000
1882	8, 700, 000	1885	10, 693, 000

The consumption has continually increased, but the prices have steadily declined. The 10,700,000 kilograms consumed [illegible] therefore, probably not

The purchase of foreign steamers, which in 1882 had been much larger than in any previous year, has fallen off much; which appears from the following comparative table:

Years.	Number.	Register tons.	Value.
			Kroner.
1881	19	6,643	2,452,000
1882	33	14,963	6,279,000
1883	23	8,701	3,344,000
1884	19	5,592	2,078,000
1885	7	2,834	953,000

If all import articles are divided into two large classes, imports intended for consumption and imports intended for industrial purposes, the results of the importation during the past ten years will be the following:

Years.	Imports intended for domestic consumption.	Imports intended for industrial purposes.	Total.	Imports intended for domestic consumption.	Imports intended for industrial purposes.
	Kroner.	*Kroner.*	*Kroner.*	*Per cent.*	*Per cent.*
1876	122,900,000	44,500,000	167,400,000	73.4	26.6
1877	139,000,000	50,800,000	189,800,000	73.2	26.8
1878	104,200,000	36,100,000	140,300,000	74.2	25.8
1879	98,800,000	33,400,000	132,200,000	74.7	25.3
1880	113,600,000	37,300,000	150,900,000	75.3	24.7
1881	122,500,000	42,500,000	165,000,000	74.2	25.8
1882	110,900,000	49,600,000	160,500,000	69.1	30.9
1883	114,200,000	47,100,000	161,300,000	70.8	29.2
1884	110,400,000	48,400,000	158,800,000	69.6	30.4
1885	101,800,000	43,800,000	145,600,000	69.9	30.1

The exports of Norway for the years 1866 to 1885 may in regard to their values be classified thus:

Years.	Products of forestry and wood industry.	Fishery products.	Other Norway articles.	Re-exported foreign goods.	Total.
	Kroner.	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*
1866–'70*	31,040,000	33,330,000	8,070,000	840,000	73,280,000
1871–'75*	44,950,000	41,790,000	16,920,000	2,560,000	106,220,000
1876–'80*	38,800,000	43,140,000	19,120,000	2,310,000	103,370,000
1881–'85*	42,860,000	42,920,000	26,080,000	2,970,000	114,830,000
1881	44,910,000	50,160,000	24,030,000	1,830,000	120,930,000
1882	45,890,000	47,070,000	26,900,000	3,100,000	122,960,000
1883	43,800,000	42,730,000	26,480,000	3,130,000	116,140,000
1884	40,520,000	39,720,000	29,340,000	2,620,000	112,200,000
1885	39,160,000	34,920,000	23,680,000	4,180,000	101,940,000

increased considerably. At percentage rate the distribution of the different classes of exports was as follows:

Years.	Timber and fishery products.	Other products.	Reshipped goods.	Total.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
1866–'70*	87. 9	11. 0	1. 1	100
1871–'75*	81. 7	15 9	2. 4	100
1876–'80*	79. 2	18. 6	2. 2	100
1881–'85	74. 5	22. 9	2. 6	100
1881	78. 6	19. 9	1. 5	100
1882	75. 6	21. 9	2 5	100
1883	74. 5	22. 8	2. 7	100
1884	71. 5	26. 2	2. 3	100
1885	72. 6	23. 3	4. 1	100

*On an average.

It is chiefly due to the single article, ice, that some decline in the percentage of other exports besides timber and fish appeared in 1885. Of this article an unusually large quantity was exported in 1884, and sold at very profitable prices. In 1885 the exportation fell off again to its normal point.

Of the value above given of the Norwegian forestry products exported in 1885, namely, 39,160,000 kroner, 31,236,000 kroner belong to timber, properly speaking, 5,664,000 kroner to wood pulp, and 1,802,000 kroner to matches.

Exports of timber during the ten years 1876 *to* 1885.

Years.	Planed timber.	Sawed timber.	Hewn timber.	Round timber.	Staves.	Firewood.	Total.
	Reg. tons.	*Reg. tons.*	*Reg. tons.*	*Reg. tons.*	*Reg. tons.*	*Reg. tons.*	*Reg. tons.*
1876	144, 199	340, 594	134, 572	240, 846	29, 854	42, 589	932, 654
1877	158, 279	314, 186	101, 479	197, 292	28, 151	31, 121	830, 508
1878	162, 198	219, 193	97, 846	195, 429	27, 016	35, 332	737, 014
1879	164, 770	176, 893	102, 134	207, 417	26, 148	29, 496	706, 858
1880	193, 654	245, 548	105, 628	290, 739	30, 061	29, 576	895, 206
1881	227, 088	228, 951	80, 016	280, 429	34, 405	31, 102	881, 991
1882	234, 044	268, 484	66, 485	278, 520	34, 526	36, 750	918, 809
1883	247, 667	244, 150	66, 165	303, 007	43, 977	40, 190	945, 156
1884	238, 954	243, 920	69, 356	307, 826	39, 969	39, 206	939, 231
1885	245, 936	236, 011	59, 441	242, 666	33, 928	42, 405	860, 387

The quantity of the exported timber was smaller in 1885 than in any of the previous five years, and was less by 49,000 register tons than the average imports for the years 1881–'85, but 40,000 register tons larger than the quantity for the years 1876–'80. The exports of sawed and planed timber have during the last years generally been somewhat over 480,000 register tons, after having reached 502,500 tons in 1882, the largest quantity exported since 1873 and 1874, when it rose to 570,000 and 550,000 register tons, respectively.

Of planed timber a somewhat larger average quantity was exported during the last years than of sawed timber, while in 1877 the proportion was one-third of planed to two-thirds of sawed timber, [illegible]

The prices which timber brought in 1885 were still lower than those of 1884, the difference being 1 or 2 kroner per register ton. The prices of 1885 were nearly equal to those of 1879, after having risen considerably in 1880–'82.

The exportation of wood pulp, which in 1875 still amounted to only 8,540 tons, valued at 683,000 kroner, has during the last six years amounted to the following:

Years.	Quantity.	Value.
	Tons.	*Kroner.*
1880	26,055	2,345,000
1881	42,800	4,280,000
1882	58,884	4,009,000
1883	70,464	4,845,000
1884	76,619	4,722,000
1885	90,781	5,664,000

This article has within some years acquired considerable importance, and notwithstanding the declining prices the quantities of export have increased steadily and considerably. In the years 1884 and 1885 alone the exports rose from 76,000 to 90,800 tons.

In regard to the other large class of Norwegian export articles, the fishery products, it has already been shown in former statistical publications that the years 1882 and 1883 were remarkable for a quite unusual decline in the exports of all the more important fishery products, and that an exceptional rise in the prices brought at the same time the value to the level of the most prosperous years. The next year gave a quite different result, showing an increase of the quantities and a falling off in the prices. About the same was observed also in 1885.

The exportation of klipfisb, or cured fish, the principal product of the large fisheries, was as follows:

Years.	Quantity.	Value.
	Kilograms.	*Kroner.*
1881	41,919,000	16,012,000
1882	40,120,000	17,653,000
1883	31,453,000	16,041,000
1884	37,666,000	13,183,000
1885	37,372,000	11,847,000

In regard to the quantity, an increase of nearly 6,000,000 kilograms is noticeable from 1883 to 1885, but as the average prices have at the same time fallen off from 51 to 32 ore per kilogram, or about 38 per cent., the value of the exports shows much lower figures.

We observe the same proportion in the exportation of stockfish (dried fish). The exports amounted to the following:

Years.	Quantity.	Value.
	Kilograms.	*Kroner.*
1884	13,875,000	5,625,000
1885	16,830,000	5,122,000

The market also for cod-liver oil has been very dull during the last year, and especially for the finer qualities. While steam-refined medicinal cod-liver oil brought on an average 180 kroner per hectoliter in 1883, it was valued at 95 kroner in 1884, and at 62 kroner in 1885. Other medicinal cod-liver oils had fallen off from 115 kroner per hectoliter to 65 kroner in 1884, and 48 kroner in 1885. Clear fish oil declined from 60 to 48 kroner in 1884, and 40 kroner in 1885, &c.

The total shipments of the different kinds of fish oils were as follows:

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	Hectoliters.	*Kroner.*		*Hectoliters.*	*Kroner.*
1880	169.000	5,295,000	1883	83,000	4,430,000
1881	125,000	5,438,000	1884	125,000	5,706,000
1882	101,000	5,383,000	1885	147,000	5,228,000

In the value given for 1885, whale oil amounting to 969,000 kroner (1884, 773,000 kroner) is also included.

The exports of herring, which had fallen off from 1,091,000 hectoliters, valued at 16,280,000 kroner, in 1881; and 664,000 hectoliters, valued at 11,567,000 kroner, in 1883, amounted to 741,000 hectoliters in 1884, of a value of 10,556,000 kroner, and to 698,000 hectoliters, of a value of 8,129,000 kroner, in 1885.

The 24,000,000 kroner, which according to the foregoing statements make the total value of the other Norwegian exports, besides fishery products and forestry products (wood pulp and matches included), embrace a large quantity of rather different articles, none of which bear any comparison in importance with the two said principal articles, but which, however, are every year increasing in number and importance. The subjoined list gives an enumeration of all the articles whose export value in 1885 exceeded 400,000 kroner:

Articles.	Value.	Articles.	Value.
	Kroner.		*Kroner.*
Nails	2,631,000	Condensed milk	695,000
Skins	2,461,000	Copper and old metal	670,000
Butter	1,953,000	Cotton goods	553,000
Woolen goods	1,629,000	Glassware	496,000
Ores	1,372,000	Nickel ore	485,000
Paper and pasteboard	1,005,000	Sole-leather	472,000
Oats	867,000	Hewn stone	468,000
Ice	797,000		

Besides the foregoing articles horses are also exported, probably to an amount of over 400,000 kroner. In 1884 apatite was exported for 710,000 kroner (1885, 168,500 kroner), beer for 637,000 kroner (1885, 381,000 kroner), and blubber for 636,000 kroner (1885, 71,000 kroner). The cause of the considerable falling off in the latter article is probably that the blubber was for a great part boiled to oil in 1886 and imported in that form.

Of smaller exports may be noted books, machines, linen goods, [illegible] yarn, yarn of linen, and [illegible]

Countries.	Imports		Exports.		Total commerce.	
	1884.	1885.	1884.	1885.	1884.	1885.
	Kroner.	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*
Germany	45,781,000	41,666,400	15,272,000	12,136,300	61,053,800	53,802,700
Great Britain	42,101,500	37,352,900	37,274,100	34,182,100	79,375,600	71,535,000
Sweden	17,457,900	16,339,500	13,041,500	13,060,406	30,499,400	29,399,900
Russia and Finland	15,704,000	16,338,300	4,255,800	2,775,500	19,959,800	19,113,800
Denmark	13,046,300	11,069,800	6,091,000	4,872,000	19,137,300	15,941,800
Countries out of Europe	7,339,700	7,957,500	2,413,400	3,799,300	9,753,100	11,756,800
Holland	5,404,800	4,828,300	5,371,500	5,416,100	10,776,300	10,244,400
France	5,549,400	4,563,200	9,527,400	7,849,000	15,076,800	12,412,200
Spain	518,300	403,500	11,327,900	10,087,900	11,922,600	10,552,700
Belgium	2,670,600	2,377,000	3,769,000	4,005,400	6,451,400	6,434,500
Italy and Austria	423,100	395,900	3,084,000	2,924,200	3,619,400	3,360,800

Trade of the principal Norwegian cities in 1885.

Cities.	Imports.	Exports.	Total.	Percentage.
	Kroner.	*Kroner.*	*Kroner.*	*Kroner.*
Christiania	70,564,700	25,051,900	95,616,600	38.6
Bergen	24,541,100	14,443,400	38,984,500	15.8
Trondhjem	10,875,100	5,218,000	16,093,100	6.5
The other cities	39,623,700	57,224,800	96,848,500	39.1
Total	145,604,600	101,938,100	247,542,200	100.0

GERH. GADE,
Consul.

UNITED STATES CONSULATE,
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REPORTS

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FROM THE

CONSULS OF THE UNITED STATES.

No. 81.—JULY, 1887.

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WEIGHTS, MEASURES, AND CURRENCY MENTIONED IN THESE REPORTS.

Name.	Country.	United States equivalent.
Arroba	Spain	25½ pounds.
Barrel	Denmark	1.4 acres.
Catty	China	1¼ pounds.
Centner, metric		110 pounds.
Franc	France	$0.193.
Hectoliter, metric		26.418 gallons.
		3,280.899 feet.
		$0.193.

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CONSULAR REPORTS

ON

COMMERCE MANUFACTURES ETC.

No. 81—JULY, 1887.

THOMAS SLAG AS A FERTILIZER.

REPORT OF COMMERCIAL AGENT SMITH.

It may not be generally known to the American public that the slag obtained in the working of crude iron, which was formerly regarded as a refuse article to be got rid of in the best way possible, cast upon hillsides and thrown into streams of water, has in the last three or four years come to be recognized in Germany as a valuable fertilizing agent and an excellent substitute for superphosphates. Four years ago this stuff was, I believe, considered as worthless; to-day 4,000,000 centners (400,000 English tons) of it are ground into a fine powder to be scattered over the fields of Germany to increase the products of the husbandman. Wonderful, indeed, seem the claims that are made for it.

WHAT IS THOMAS SLAG?

In pig-iron much phosphorus is met with, which must be removed when the iron is converted into steel or forged. The freeing of this phosphorus from the rough iron was formerly a matter of much difficulty, but is now very satisfactorily done by an improvement of the Bessemer process, discovered by Messrs. Gilchrist and Thomas, of England. The slag obtained in this process is denominated Thomas slag, and is rich in phosphoric lime. From it the iron is separated, and the slag then broken up, sifted, and finely ground into dust, powder, or meal, which is put upon the market as a fertilizer. This product is said to be generally made up of about 16 per cent. of phosphoric acid, 50 per cent of lime, 12 per cent. of oligist iron and oxidized iron, and 7 per cent. silicic acid; but the phosphoric acid can run from 10 to 25 per cent. Under the name of patent phosphate meal, a dust, meal, or flour is given to the public made out of manipulated Thomas slag, which contains from 24 to 28 per cent. phosphoric acid.

Up to two years ago it was not believed that the crude Thomas slag finely ground could be [illegible] it would

material to a fine powder or dust a more effective fertilizer is obtained than from bone dust or even raw Peruvian guano. All that is done to the slag is simply to grind it to a powder as fine as dust. The German iron works make about 4,000,000 centners (400,000 English tons) of Thomas slag a year, which can be sold to the farmers, when reduced to a dust, at a price one-third of superphosphate, containing an equal quantity of phosphoric acid. To fix the relative value of Thomas slag, in comparison to other fertilizers, is, of course, determinable only by painstaking experiments, and to such a work Professor Wagner, in charge of the experimental agricultural office at Darmstadt, a Government institution, seems to have devoted himself with great zeal and fidelity, and has published a treatise on this new fertilizer, upon which this report is based.*

PROFESSOR WAGNER'S EXPERIMENTS.

Phosphoric acid, says Professor Wagner, dissolves in water the less readily and is taken up by the roots of plants with the greater difficulty in proportion to the lime it contains. In superphosphate, for each 100 pounds of phosphoric acid there are 40 pounds of lime. The superphosphate easily decomposes in water, therefore. In precipitated phosphate of lime there are 80 pounds of lime to the same quantity of phosphoric acid and the solubility is much less than that of superphosphate.

Bone dust, "*phosphoritmehl*," and guano phosphates have a phosphate of lime containing 120 pounds of lime to every 100 pounds of phosphoric acid, and this phosphate, as is well known, can hardly be dissolved in water. In Thomas slag a phosphate is met with in which for every 100 pounds of phosphoric acid there are not less than 160 pounds of lime, but there is a hypersaturation of phosphoric acid with lime, and they do not adhere strongly together. Plants can very easily, therefore, take up the phosphoric acid contained in Thomas slag, and it is not necessary to mix it with acids to make a superphosphate, or to extract it with muriatic acid and to precipitate the product with lime. All that is necessary, as said before, is simply to grind the slag to a fine dust or powder.

CONDITIONS OF THE EXPERIMENTS.

The relative value of Thomas slag to other fertilizers cannot be fixed with accuracy, says Professor Wagner, by experiments in the open field. It is impossible to have the necessary conditions the same for each fertilizer brought into an experiment. It is difficult to find parcels of ground like one another all in all. The measuring and dividing of them off, the working, manuring, sowing, and harvesting of them, as well as the fixing of the weights of the products realized, cannot possibly be the same in each instance.

[illegible] come the many dangers and influences to which plants grow- [illegible] from insects, moles, mice, birds, and [illegible] cannot, therefore,

made by others in the open field to show the truth of his position, which I do not think it necessary to give. The proposition is too self-evident.

In making his experiments Professor Wagner takes different appliances, according to the question that is to be answered. In part he uses cylinders open at the top and bottom (133 centimeters long and 60 to 100 centimeters in diameter, about 51 inches long and 25 to 38 inches in diameter), made of zinc, buried in the earth up to the rim and filled with the soil with which the experiment is to be made. Each cylinder thus contains a parcel of earth, which differs from a field experiment in this, that it is very small and fulfills all the requirements for an exact experiment. The soil used in each case of a comparative experiment is always one carefully mixed, of precisely the same characteristics throughout, with the materials disposed in the same way, quality of fertilization the same, seed sown in the same manner and at the same depth, number of plants and their distance from one another the same, &c.

These parcels are perfectly separated from the surrounding ground to a depth of 133 centimeters (51 inches). Every injury to the product can be provided against without loss and the product fixed with exactness. In experiments made in the open field these conditions cannot be controlled. They can also be made independent of all underground influences.

Besides these cylinders he also makes use of free and movable vessels constructed of tin, consisting of different sizes, and holding from 17 to 770 pounds of earth, the largest of which are put upon rollers. The smaller ones stand upon wagons 4 meters (about 13 feet) long, resting upon rails, so that they can be run under cover when a storm threatens or frost is feared. Of these vessels Professor Wagner says he has 650, and of the cylinders mentioned 260.

RESULTS.

Now what results did Professor Wagner meet with in his experiments? During the past three years he made a number of experiments at the experimental office at Darmstadt, in co-operation with four other gentlemen, not with a view to gratify theoretical scientific curiosity, but for the purpose of serving the practical farmer, in which experiments both the kinds of vessels mentioned were employed. For the first trials a Thomas-slag powder was used, for every 100 parts of which only 51 would pass through a sieve made of wire, with openings measuring 0.2 to 0.24 millimeters on the side and 0.35 to 0.37 millimeters diagonally. The tests were made with oats and barley on soil containing lime, of a loamy character, on sandy soil poor in lime, and on calcareous soil, in vessels holding 35 to 39 pounds of earth; and the fertilizing was done in the following manner: All the vessels received a superfluity of kali (potash) and nitrogen, in order to bring the phosphoric acid to full working everywhere. There were 6 vessels which received no fertilization with phosphoric acid, 2 by 5 which got a rising fertilization of soluble phosphoric acid in the form of a bone-ash superphosphate, equivalent to 88 111 11

could be traced exclusively to a difference in the operation of the phosphoric acid.

The average results of the single rows were as follows:

Fixing the greater product realized by the use of phosphoric acid soluble in water at 100, the greater product obtained by the use of an equal amount of phosphoric acid in Thomas slag will be—

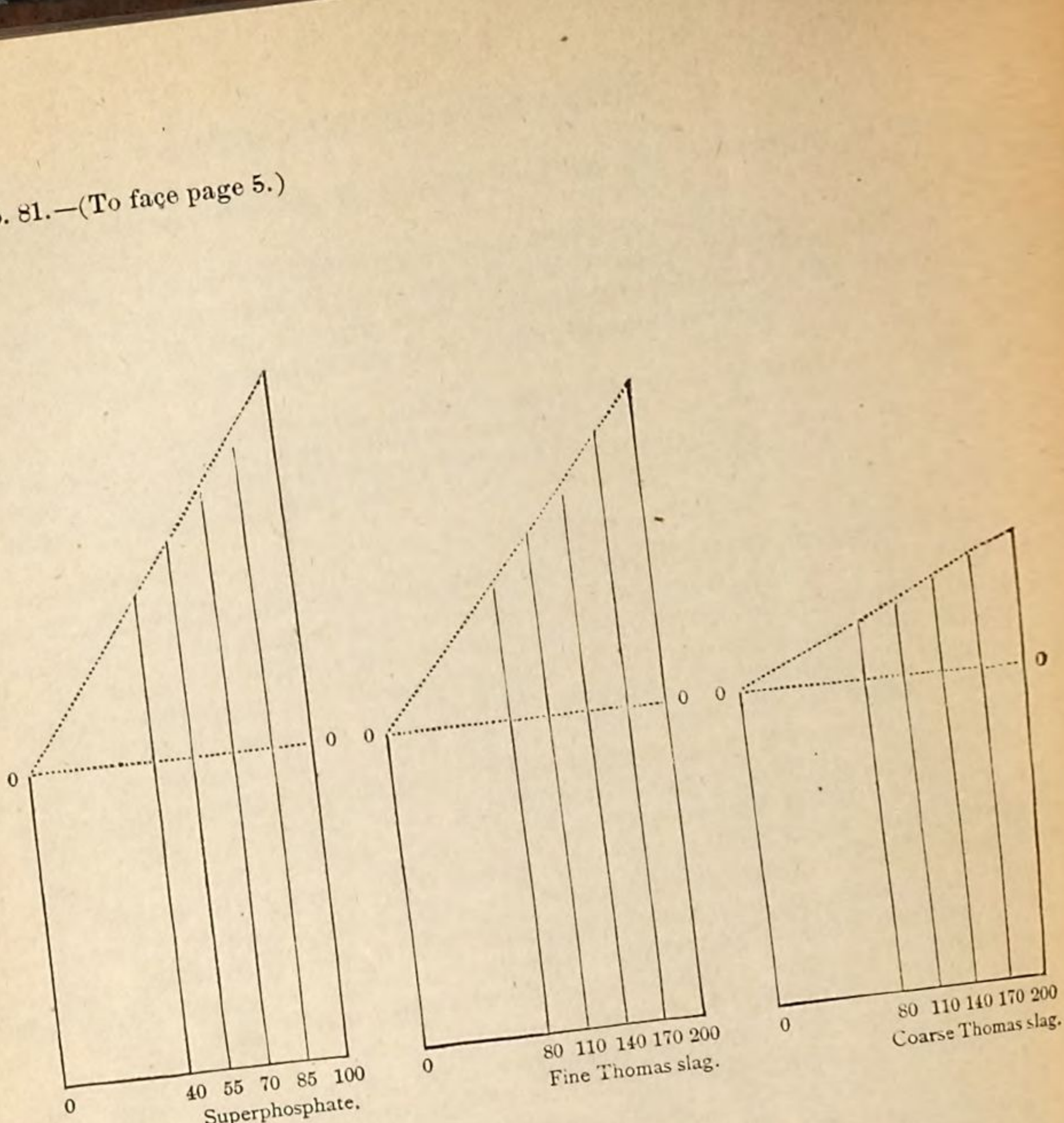
In the case of the experiments with barley on sandy soil	22
With experiments with the same plant on calcareous soil	18
In the case of experiments with oats on loamy soil	18
With respect to barley on loamy soil	20
Average result	19

The effect of Thomas slag compared to that of superphosphate was thus slight. The slag experimented with was too coarse. Experiments in the laboratory then convinced Professor Wagner that the phosphate contained in Thomas slag is decompoundable, and that the efficacy of the ground slag would probably be greater in proportion to the fineness of the grinding. This conclusion subsequent trials, made in 1885, confirmed. This time a slag was employed of which 98 per cent would pass through a sieve measuring 0.2 millimeters, and in connection with it a slag possessing grains 0.2 to 0.4 millimeters in diameter. To make the trials, turfy ground, sandy soil, loamy soil, and a calcareous soil were chosen, and white mustard, Indian corn from Baden, and a mixture of meadow grasses. All the other circumstances under which the experiments were carried out were the same as those just above mentioned. The turfy and calcareous soils contained such a large amount of phosphoric acid that could be easily taken up by the plants that the increased product brought about by the application of Thomas slag and superphosphate was slight, and Professor Wagner cast them aside as valueless. The experiments with white mustard on a sandy soil, poor in humidity (containing 0.6 per cent of carbonate of lime), and on a loamy soil (containing 2.1 per cent of carbonate of lime) gave very exact and reliable results.

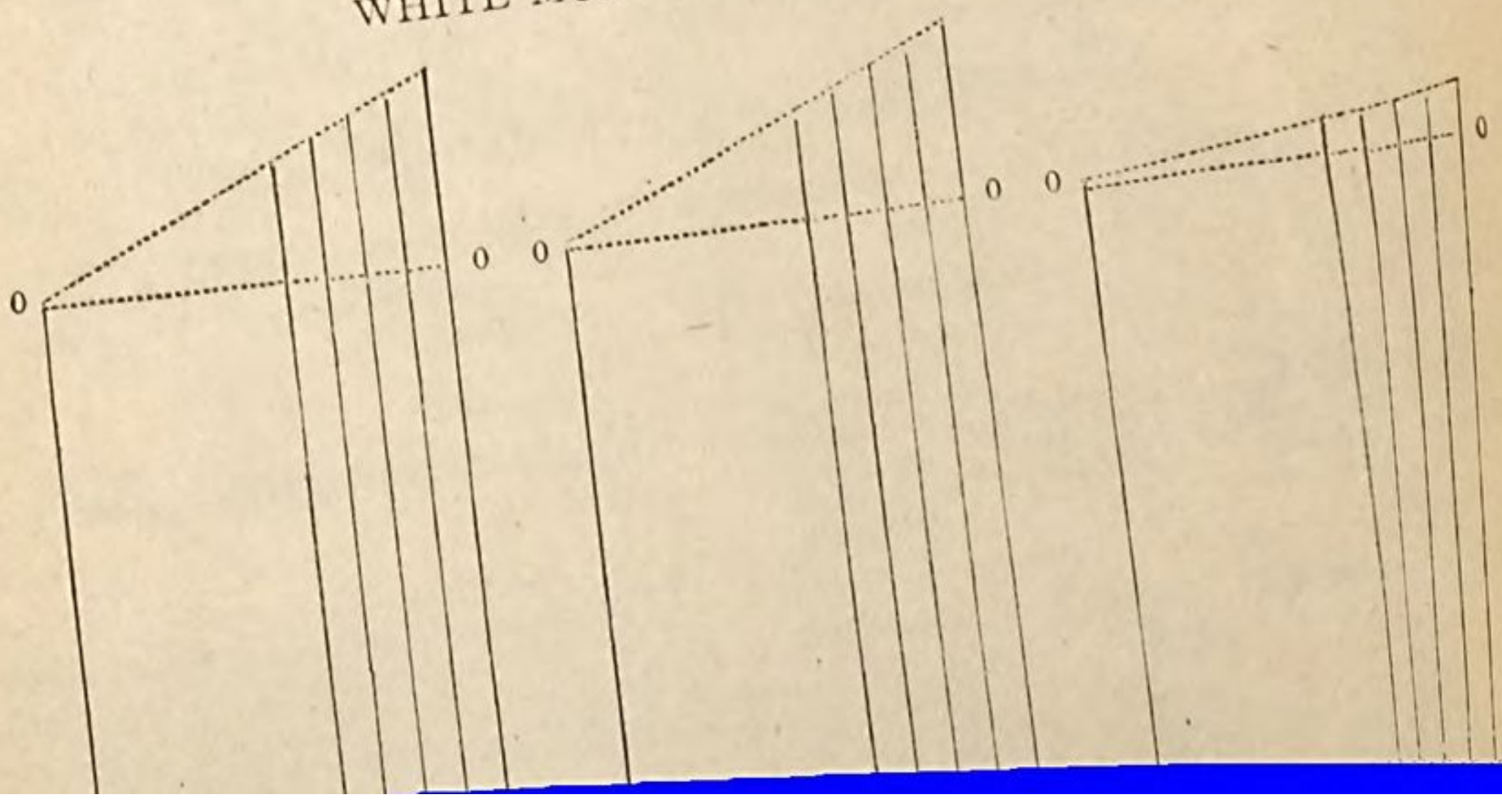
The following table shows the average results:

Experiments with white mustard on sandy and loamy soils.

Phosphoric acid given in the form of—	On sandy soil.		On loamy soil.	
	Reckoned amount of phosphoric acid per hectare.	Products in dry substances.	Reckoned amount of phosphoric acid per hectare.	Products in dry substances.
	Kilograms.	*Grams.*	*Kilograms.*	*Grams.*
	40	16.8	50	173.8
	55	18.7	60	180.7
	70	20.1	70	186.0
	85	22.0	80	187.7
		24.4	90	196.0
			100	174.5
				178.0



WHITE MUSTARD IN LOAMY SOIL.



The number of parallel experiments amounted to three in the case of each fertilization with phosphoric acid, and to five where there was none.

Professor Wagner deduces from these experiments this, that with great regularity the products increased in quantity in proportion to the amount of phosphoric acid applied, and claims that from these sums he is justified in making an exhibit like the following as an average calculation·

White mustard in sandy soil.

Adding the fertilizers and the incr ased products obtained by their use, the following exhibit is acquired:

[480 grains to an ounce.]

Fertilizer.	Sandy soil.				Loamy soil.			
	Amount of fertilization.		Increase in product.		Amount of fertilization.		Increase in product.	
	Kilos.	*Pounds.*	*Grams.*	*Grains.*	*Kilos.*	*Pounds.*	*Grams.*	*Grains.*
Superphosphate	350	771.4	46	709.8	350	771.4	166.7	2,572.5
Fine Thomas slag	700	1,542.8	40.1	618.8	700	1,542.8	150.	2,314.8
Coarse Thomas slag	700	1,542.8	16.8	259.2	700	1,542.8	52.9	816.3

Supposing the products got by superphosphate fertilization equal 100, the following results arise:

Fertilizer.	Sandy soil.	Loamy soil.	Average from sandy and loamy.
Fine Thomas slag	49	45	47
Coarse Thomas slag	20	16	18

From this average result he draws the conclusion that in order to realize the same effect with phosphoric acid in the form of Thomas slag, with the first crop following a fertilization that is produced by one part of phosphoric acid soluble in water, requires 2.1 parts of phosphoric acid in the form of fine Thomas slag, or 5.6 parts of phosphoric acid in the form of coarse Thomas slag. Therefore their relative value per pound is as 50 to 24 in the case of fine Thomas slag, and as 50 to 9 in the case of coarse, the 50 representing the value of the soluble phosphoric acid; that is, when reference is had solely to the immediate effects of the fertilization upon the first crop following its application and not to its subsequent and lasting effects at the same time.

EXPERIMENTS OF 1886.

In 1886 Professor Wagner made further experiments in order to ascertain the relative merits of the [illegible] Thomas slag of [illegible]

The trials were as follows:

I. One row of 46 single experiments with barley in vessels containing a sandy loam possessing 1.9 per cent. of carbonate of lime.

II and III. Two rows of 46 and 47 single experiments with summer wheat and flax in vessels holding a loamy earth ("wheat soil") having 6.5 per cent. of carbonate of lime.

IV. One row of 85 single experiments with oats in cylinders containing a soft porous soil with 31.2 per cent. of carbon of lime.

The fertilization was as follows:

Kind of fertilizer.	Degree of fineness of fertilizers.				Percentage in the fertilizer of—		
	Grains to 0.1 millimeter.	Grains from 0.1 to 0.2 millimeter.	Grains from 0.2 to 0.4 millimeter.	Grains from 0.4 to 1.0 millimeter.	Phosphoric acid soluble in water.	Entire phosphoric acidity.	Nitrogen.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Superphosphate	.....	.....	.....	.....	18.74	19.1	.....
Raw Peruvian guano	20	20	46	14	.....	19.23	4.34
Bone-dust	100	0	0	0	.....	20.43	3.97
Coprolithenmehl	.....	.....	.....	.....	.....	21.71	.....
Thomas slag:							
I.—Finest grinding	100	0	0	0	.....	20.35	.....
II.—Finely ground	83	17	0	0	.....	17.69	.....
III.—Coarsely ground	0	52	48	0	.....	17.6.	.....

All the elements requisite to the nourishment of the plants, with the solitary exception of phosphoric acid, were present in excess. Alkali and nitrogen were present in the form of nitrate of potash and nitrate of ammonia.

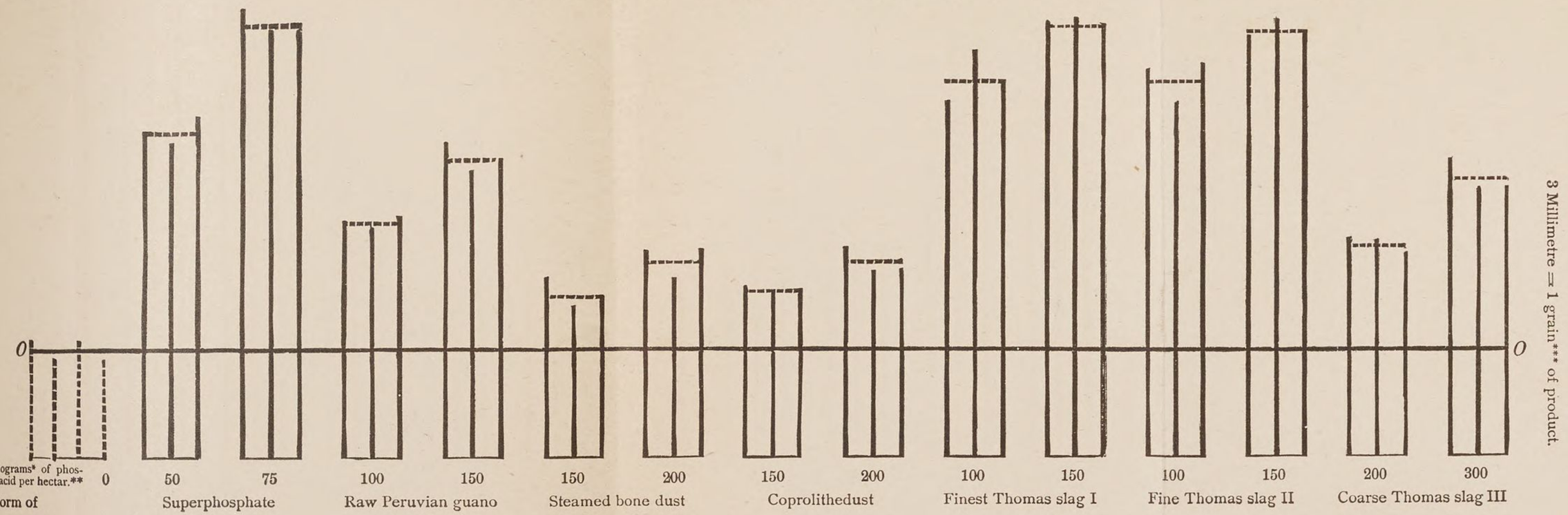
The parcels were only watered when, during a dry spell, the atmospheric precipitations did not suffice to protect the plants from withering. Each parcel then received the same quantity of water.

The earth with which the vessels were filled contained the normal moisture of 15 per cent. of water. So soon as this amount sunk to 10 or 8 per cent., the earth was given as much water as it was considered the plants required until the next measurement or weighing, and as was conceived necessary for the water to get distributed through the entire mass of earth. And no more water was supplied until the amount of moisture had sunk to the limit above mentioned.

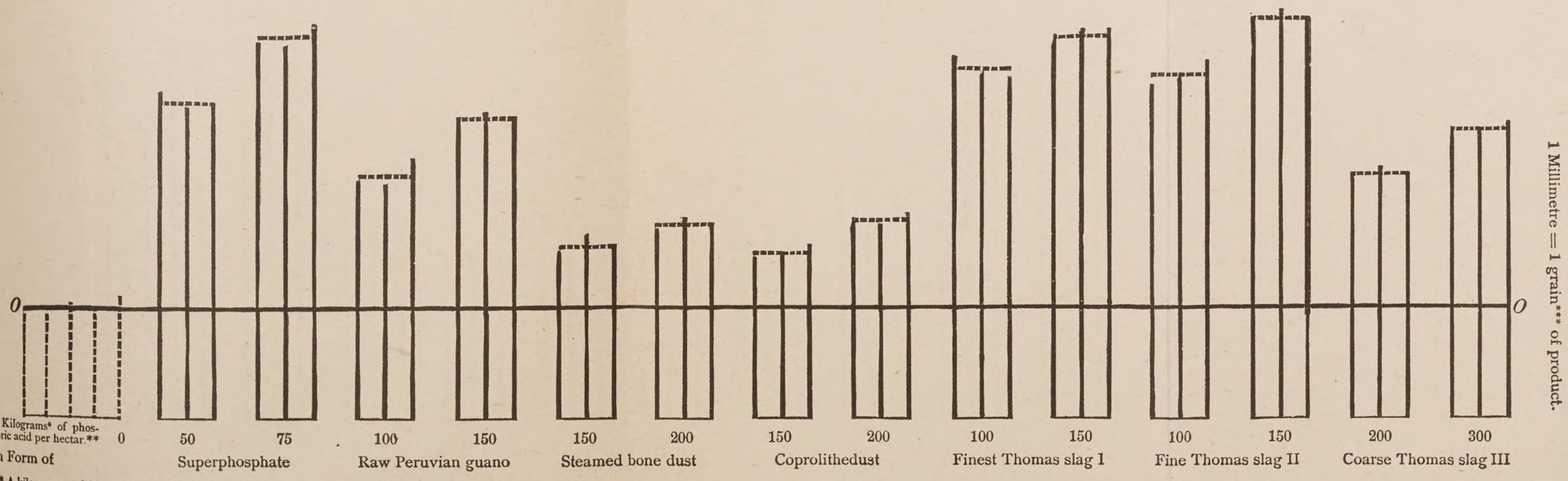
The harvesting took place when the barley, &c., were almost too full grown, and in the case of flax at the beginning of the ripening of the seed. The fixing of the fertilizing efficacy of the phosphates on the one hand after a half-completed vegetative period, and on the other with completed vegetation, was so far interesting that thereby a basis was obtained for determining the rapidity or slowness with which the phosphates worked. A phosphate quickly operating

Consular No. 81.—(To face page 6.)

PARALLEL ROW II. WHEAT.



PARALLEL ROW III. FLAX.



* A kilogram = 2.20 pounds avoirdupois.
** A hectar = 2.47 acres.
*** A grain = 15.43 grains avoirdupois.

The following table shows the phosphoric acid fertilization and the products obtained in cases I, II, and III:

Fertilizer.	Phosphoric acid fertilization per hectare.	Products in dry substances.					
		I.—Barley.		II.—Wheat.		III.—Flax.	
		Products of the parallel experiments.	Average of the parallel experiments.	Products of the parallel experiments.	Average of the parallel experiments.	Products of the parallel experiments.	Average of the parallel experiments.
	Kilog'ms.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*
.....	0	11.01		6.90		18.63	
	0	11.31		6.12		19.35	
	0	11.50	11.4	6.11	6.5	21.04	20.1
	0	11.62		7.01		19.63	
	0	.....		.....		21.73	
Superphosphate	50	23.87		19.31		59.36	
	50	24.45	24.5	18.78	19.5	55.61	57.4
	50	25.30		20.47		57.14	
	75	28.06		26.76		67.52	
	75	30.04	29.1	25.25	25.8	66.73	68.3
	75	29.33		25.42		70.62	
	100	20.12		10.04		43.26	
Raw Peruvian guano	100	20.41	20.1	13.64	14.0	41.76	43.9
	100	19.83		14.43		46.79	
	150	21.61		18.80		53.96	
	150	23.12	22.6	17.13	17.8	55.14	54.3
	150	22.97		17.57		53.79	
	150	15.83		10.53		30.44	
Steamed bone-dust	150	14.93	15.2	9.13	9.7	33.38	31.6
	150	14.75		9.36		30.83	
	200	17.51		12.49		34.15	
	200	16.72	17.2	10.82	11.9	36.18	35.2
	200	17.36		12.27		35.20	
	150	14.83		9.94		29.03	
Coprolithenmehl	150	15.06	14.8	10.08	9.9	29.78	30.0
	150	14.58		9.58		31.11	
	200	15.47		12.49		35.12	
	200	16.01	15.6	11.06	11.3	35.12	35.7
	200	15.41		10.35		36.98	
	100	28.10		21.09		65.33	
Thomas slag, finest grinding...	100	29.20	28.5	24.00	22.4	61.53	62.8
	100	28.30		22.25		61.46	
	150	29.54		25.55		68.26	
	150	30.03	29.4	26.14	25.8	70.13	69.6
	150	28.70		25.80		70.46	
	100	26.21		23.06		59.72	
Thomas slag, fine grinding.....	100	28.00	26.8	21.09	22.5	60.84	61.5
	100	26.20		23.45		64.00	
	150	29.02		24.92		71.68	
	150	30.41	29.5	25.95	25.4	72.61	71.6
	150	29.10		25.22		70.53	
	200	17.80		12.92		44.14	
Thomas slag, coarse grinding..	200	18.10	18.0	13.00	12.6	44.73	44.2
	200	18.02		11.97		43.75	
	300	21.41		17.51		52.22	
	300	20.20	20.9	16.21	16.6	52.17	52.5
	300	21.02		16.07		52.99	

The results obtained in the case of IV Professor Wagner cast away as unsatisfactory, as, in consequence of the soil containing too much phosphoric acid, the greater products realized were not sufficiently large to give perfectly exact results. The experiments I to III, on the other hand, resulted in decided increased products from the phosphoric-acid fertilization, and, as is to be seen from the tables the results of the parallel trials are in such
be used *with*

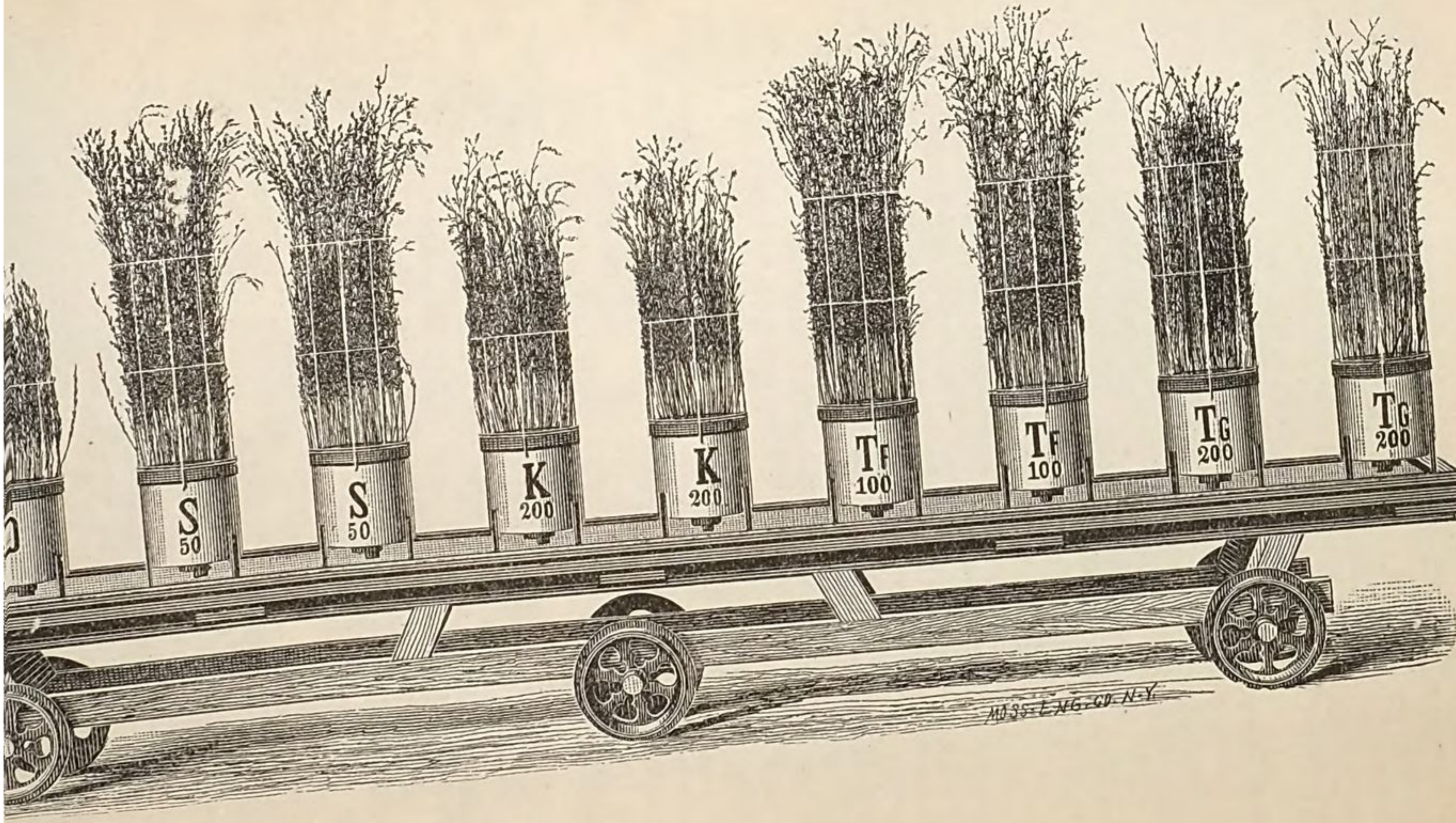
This table speaks for itself without further explanation. The upright lines give the results of the single experiments, the dotted horizontal lines their average product. The products realized in the case of unfertilized parcels (free of phosphoric-acid fertilization) are given in broken lines, and the average product of such is indicated by a horizontal line crossing all the products, whereby the eye takes in at once the degree of increased production.

By his former labors, says Professor Wagner, it was established that the increased product arising from fertilization with phosphoric acid increases in proportion to the increase in fertilization, as all other vegetative factors are present in excess. That the products of the parcels similarly fertilized agree is not enough. The average result he regards as useful only when it can be proved that the fertilization has not met with any hindrance in its operation, and this can only be fixed by the principle just expressed.

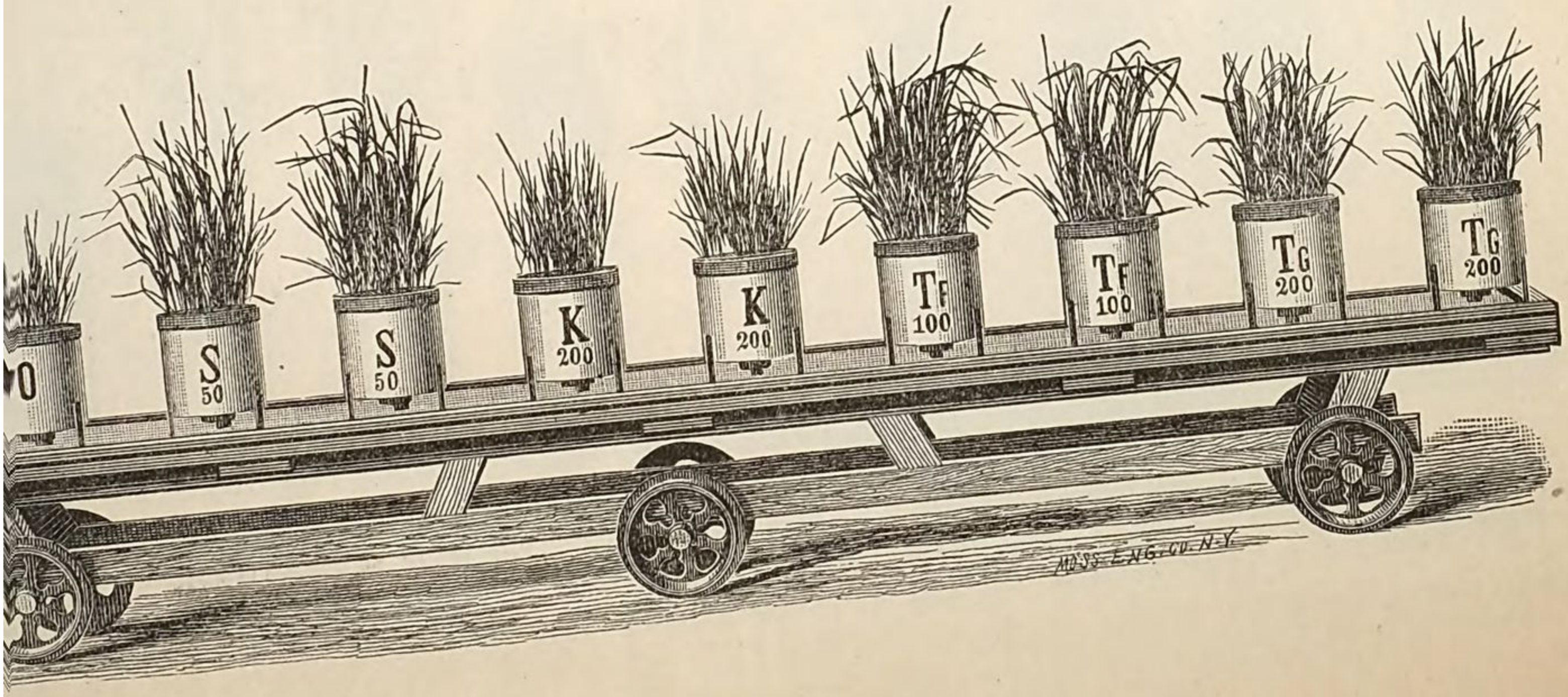
Keeping in view the foregoing tables, it will be seen that the stronger fertilization (75 to 150 kilograms) with superphosphate—Thomas slag I and Thomas slag II—does indeed show a regular increase in the products as compared to the lighter use of the same phosphates, but the advance was, on the whole, slighter than it should have been if the fertilization had come into full operation. A calculation clearly shows this, for if the corresponding products of the three rows of experiments are added up the increased fertilization with superphosphate—Thomas slag I and Thomas slag II—shows greater products of 133, 125, and 126 grams, respectively, while they should have rendered 133, 151, and 147 according to the rule. With the other fertilizers the result came truer, and the increase was in the same degree in the case of both the strong and the weak, as guano, bone-dust, coprolith, and coarse Thomas slag gave with a strong fertilization 95, 64, 63, and 90 grams, when, according to rule, they should have given 98, 63, 62, and 93.

Leaving out of consideration the products brought about by the stronger fertilization, and using only those reliable average ones produced by the weaker fertilization in the case of the superphosphate—Thomas slag I and Thomas slag II—while employing the results of the stronger fertilization in the case of the other fertilizers as well as those derived from the weaker, and setting the average result with superphosphate at 100, we get for the other phosphates the following figures:

Fertilizer.	Trial row I, barley.		Trial row II, wheat.		Trial row III, flax.		General average of all the rows and fertilizers.
	Weak fertilization.	Strong fertilization.	Weak fertilization.	Strong fertilization.	Weak fertilization.	Strong fertilization.	
Superphosphate	100	.....	100	.....	100	.....	100
Raw Peruvian guano	33	28	29	29	32	31	30
	10	11	8	10	10	10	10
	9	8	9	9	9	10	9
							61
							58



EXPERIMENTS WITH THOMAS SLAG.



EXPERIMENTS WITH THOMAS SLAG.

carbonate of lime or a heavier loam (wheat soil) with 6.5 per cent of carbonate of lime was used, the effect of the different phosphates has remained the same under all circumstances.

In order to show with distinctness to the eye the regularity with which the plants grew in the parallel rows according to difference of fertilization, Professor Wagner had some of the vessels, with their plants, of trial rows II and III (flax and summer wheat) photographed and then lithographed. The picture they present is as follows:

What value, then, as a fertilizer has the phosphoric acid of Thomas slag in comparison to superphosphate and other fertilizers containing phosphoric acid? Professor Wagner says that the result of his experiments with the three different kinds of plants and the two different kinds of soil is this, that if the fertilizing value of phosphoric acid in superphosphate when soluble in water is fixed at 100 the value of the phosphoric acid is as follows:

Raw Peruvian guano	30
Steamed bone dust	10
"Coprolithenmehl"	9
Thomas slag:	
I.—First quality	61
II.—Medium quality	58
III.—Coarse quality	13

The Peruvian guano was only one-third as efficacious and the bone dust one-tenth as the superphosphate, while the finely ground Thomas slag operated twice as well as the phosphoric acid in the guano and six times as well as the phosphoric acid in the bone dust. It is possible that the guano and bone dust would have shown an intenser effect if they had been longer in the ground, say from the autumn, but Professor Wagner does not think that a very material improvement would have taken place. Consequently, Thomas slag during the first three months of vegetation after its use gives twice as great a product as phosphoric acid in raw Peruvian guano and six times as much as the phosphoric acid in steamed bone-dust.

Superphosphate phosphoric acid forms the proper basis, the professor says, for the determination of the fertilizing value of the phosphoric acid contained in Thomas slag. The farmer must know what he can pay for one pound of Thomas phosphoric acid when a pound of soluble phosphoric acid in superphosphate costs a certain sum. Taking the results that have been obtained, when the soluble phosphoric acid in superphosphate is put at 100, the fertilizing value of the phosphoric acid in Thomas slag I will be 61; II will be 59; III will be 13.

The efficacy of the slag, it appears, depends largely upon the fineness of the grinding. It must be dust fine to be highly effective. Upon this point Professor Wagner seems to think that too much stress cannot be laid. The slag denominated I must be so fine that it can be rubbed between the fingers like flour and pass through a sieve with 0.1 millimeter openings without leaving any remains; but only during the first six weeks of vegetation did it work with Professor Wagner better than slag designated as II, and at the end of three months the latter caught up to the former. [illegible]
conclusion, that [illegible]

0.2 millimeter large is named coarse slag or slag III. What passes through a sieve with 0.2 millimeter openings we will call fine powder, and that part of this powder which goes through openings 0.1 millimeter in size, dust, while what remains in the sieve with openings 0.2 millimeter large we will term coarse powder.

Fine powder, says Professor Wagner, that is, Thomas slag II, that consists of 80 per cent. of dust, contains phosphoric acid in such a soluble form that 100 pounds of it in the first year after application is equal in effect to 60 pounds of the phosphoric acid in superphosphate; but there must be at least 80 per cent. of the so-called dust (that is, slag which will pass through a sieve with openings 0.1 millimeter in size), otherwise the effect will be much less. Such a slag (80 per cent. dust and 20 per cent. fine powder) has the following value in comparison to superphosphate containing the same quantity of phosphoric acid: 100 parts of coarse powder (Thomas slag) compared to 100 parts of superphosphate have a value of 13 or 20 parts of coarse powder (20×0.13), the value of 2.6; 100 parts of fine powder compared to 100 parts of superphosphate have a value of 60 or 80 parts of fine powder (80×0.6), the value of 48.0. Total, 50.6.

Fixing, then, the fertilizing value of the phosphoric acid in superphosphate at 100, the phosphoric acid in ground Thomas slag (20 per cent. of coarse powder and 80 per cent. of fine powder) has a value in round numbers of 50; that is, in the first summer after application in the spring two pounds of the Thomas slag of the degree of fineness in question is equal to one pound of superphosphate; or, in other words, such a Thomas slag, costing 45 cents a pound, is more valuable to the farmer than superphosphate at $1 a pound, assuming that two pounds of the former are required where one pound of the latter answers.

The form in which phosphoric acid is contained in Thomas slag seems to be far more decomposable and much more easily taken up by the roots of plants and more easily dissolved by water and acids than the phosphoric acid held by mineral phosphates. Chemical experiments, Professor Wagner says, prove this.

Can the iron contained in Thomas slag have any prejudicial influence upon plants? It cannot, says Professor Wagner, and the fear that it may have a deleterious effect he considers unwarranted.

Under what conditions and in what manner is this new fertilizer best employed? Professor Wagner's experiments with a loamy soil (wheat soil) of an ordinary limy character and with a sandy loam, poor in lime, agreed in showing that Thomas slag works upon them much more quickly than bone dust and Peruvian guano do. Other experiments made before this by him on the same kinds of soil, but with a phosphate dissolvable with much greater difficulty, that is, ground apatite (compact phosphate of lime), showed next to no effect, while upon marsh land it exhibited a very satisfactory result. It is, [illegible] to be taken for granted that a marshy soil dissolves and takes [illegible] greater readiness than farm [illegible]dity and

too little nutrition and the fertilization is not scientific. It is, too, a mistake to fertilize such ground with dung water. It would be much better he thinks to give it to Indian corn, roots for fodder, rapeseed, winter grain, and the orchards, upon which the nitrogen in the water would be more valuably used than upon the meadow grasses and clovers, which are not so much in need of that as of phosphoric acid. The latter easily draw from the air all the nitrogen they need. And where a meadow does not have an immoderate supply of water, and yet does not lack in moisture, 500 to 600 pounds of kainit an acre put on the soil in combination with about 800 pounds of Thomas slag produces astonishing results, he says.

On meadow land the slag should be plowed in as deep as possible to make it effective for a series of years, as on the surface it works with too great rapidity and strength, and thus becomes wasted to a certain degree.

In vineyards and orchards, as well as in gardens and wherever the soil is deeply worked, the slag is very beneficial, and should be used. It provides a fine soil at a good depth for the plants to strike their roots into for life and moisture.

Each layer of earth of $\frac{1}{4}$ of a meter's thickness (about $\frac{1}{4}$ of a yard) should receive about 600 pounds of Thomas slag to an acre, Professor Wagner thinks, in the deeper layers of earth. Where the slag is used in ordinary farming in the place of a superphosphate formerly employed, double the quantity of the latter should be the slag.

JAS. HENRY SMITH,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Mayence, May 2, 1887.

FOREST CULTURE AND FOREST PRESERVATION IN NEW SOUTH WALES.

REPORT OF CONSUL GRIFFIN, OF SYDNEY.

The government of New South Wales has for many years been duly impressed with the necessity of taking active steps for the preservation of the useful timber trees of the colony. The soft, straight-grained woods, such as yellow and white pine, except in inaccessible places, are well-nigh exhausted. The white beech, cypress, and cedar trees are also becoming very scarce. The latter trees are seldom found except in the interior, and it is most difficult and expensive to convey them to market. Moreover, they are never met with in quantities. In fact, vast forests of one particular kind of tree, like the pine, spruce, or cedar of the United States, are unknown in this colony. Such trees, when found, are usually distributed amongst an almost endless variety of other kinds.

AREAS UNDER FOR[illegible]

western water-sheds. This range has seven main branches, the highest peak of which is 7,300 feet, about 300 feet below perpetual snow.

The country east of the great dividing Range is estimated to contain 50,000 square miles, one-fourth of which probably consists of forests.

Pine trees, known as the Morton Bay pine, red or black Port Macquarie pine, Richmond white pine, white cypress pine, mountain pine, Blue Mountain pine, colonial deal, &c., are found in various parts of this colony, but, as I have said previously, this timber is difficult to reach, the country containing it being very rough, with high ranges and deep gullies. The principal woods of the colony, "Eucalypti," belong to the natural order *Myrtaceæ*. They are very hard and difficult to work and are generally known by the name of hardwoods.

On rich soil they grow to a greater height and produce better timber than on poor soil, but in most cases the wood is poor, and when it reaches maturity the heart becomes very brittle. The leaves are vertical and leathery, and afford little shade to the traveler.

Some varieties of the Eucalyptus make very good sleepers for railways and piles for bridges and wharves, but it does not at all compete with American lumber for building purposes, and it is extremely doubtful that it will ever come into general use. Some of the woods known as iron-bark and red-gum are deemed indestructible in moist ground. The latter is thought to be quite equal in strength and durability to the celebrated "jarah" of Western Australia, which is also a species of Eucalyptus. The "jarah," like all the hardwoods of Australia, is liable to decay in the center. The sound trees are said to yield useful and durable timber, and there is talk of exporting it to the United States for cabinet work. The wood is of reddish color, close in texture, and of slightly wavy grain. It is said to be admirably adapted to docks and wharves. It is impervious to the attacks of the *Teredo navalis* and white ant. The timber of the red-gum is characterized by considerable density and hardness. Like the "jarah," it is of close texture and wavy grain and is said not to shrink longitudinally. There are 47 varieties of the Eucalyptus in New South Wales and they are all characterized by lofty stems, thin branches, dull-colored foliage, wrinkled bark, and scanty undergrowth. The commonest amongst them are the box, stringy bark, blue-gum, red-gum, spotted-gum, gray-gum, messmate, peppermint, tallow-wood, iron-bark, mahogany, &c.

The best known of these trees is the celebrated blue-gum, *Eucalyptus globulus*. This tree grows to a greater height than any other in the world, and sometimes rises to 200 feet before sending out a branch. It reaches a greater height, however, in Victoria and Tasmania than in New South Wales. The highest ever felled in the latter colony was 360 feet, while in Victoria one was felled (at Healsville, 37 miles from Melbourne) measuring 480 feet (14 feet higher [illegible] Strasburg Cathedral). The circumference of this giant of [illegible] these trees not unfrequently [illegible] Wards E.

reached, which is often at a height of 100 feet or more above the root. The young leaves fall away and leave the tree still more bare as it grows up.

Mr. Wood says of these trees:

> Long bands of bark hang down from their sides and across their branches, and when set in motion by the wind, keep up a constant rattle and creaking, filling the gloomy forests with the strangest echoes and sounds. The great height of the trees would never be imagined from the aspect they present. As they always grow on very steep slopes, and never crown the summit of the ridges, their height is lost against the adjacent ranges. It is only when standing against their moss-covered stems, where the roots rise gracefully up around from the buttress-like base, twisting and turning round the bole-like massive moorings, that one gets an idea of their enormous size.

The timber of this tree is strong, heavy, and durable. Its transverse strength is equal to that of English oak. It is used to a limited extent for ship-building purposes, and for wagons, carriages, &c.

THE ACACIA.

There are about one hundred different varieties of the acacia in New South Wales. They are found in the open forests. The wood is of little value, but the bark is exported to various countries, where it is highly prized for tanning purposes. These trees are known by the generic name of "wattle." Their gum is utilized for commercial purposes, and the beautiful yellow flower the tree bears is used in the manufacture of perfume.

COMMON FORESTS AND PRIVILEGES OF POPULATION IN THEM.

With the exception of the government reserves, which include about 5,400,000 acres, all forests or Crown lands in New South Wales are common property, except for grazing purposes. The government reserves are, however, of a temporary character, and are reduced from time to time partly because upon careful examination they are found to contain little or no timber, and partly because the Government yields to the pressure brought against it to put the land up for sale. The Government also controls large areas of unreserved timbered lands, but when once sold it has nothing to do with the timber upon them. In most cases when land is sold the purchaser usually destroys the timber by ring-barking.

A special license is required to cut timber from Crown lands. The charge for a license is at the rate of 5*s.* ($1.20) for ordinary timber, and 10*s.* ($2.40) for cedar. Any person armed with a proper license can cut as much timber as he can remove from the land. No license is required by any one for the purpose of cutting fire-wood for his own use, or not intended for sale.

Rights to cut and remove timber from blocks within state forests are also sold by auction, or by tender, at an upset price of £10 ($48.66) per block of 640 acres per annum, for term of one year only, unless circumstances should justify the government in special cases extending the term to three years, and then, in addition to block rental, royalty will be imposed.

for the whole year, if tenancy be created at any time of the year prior to the 30th of June, and for the half year's rental, if afterwards.

Lands thus rented, even after renewal, do not bar the area from sale, conditional or otherwise.

Scrub lands may be leased in areas of 10,240 acres maximum, and 640 acres minimum, for a term of fifteen years, subject to clearing conditions from time to time defined by regulations, at a minimum rental of 2*s.* 6*d.* (60 cents) per section for the first five years, and 5*s.* ($1.20) for the second five years, and £1 ($4.86) for the third five years.

Rental during any of the three five years may be remitted upon the recommendation of the local land board. No residence on scrub leases is required by the land act.

In the common forest no protection is afforded against the ravages of stock, and some of the edible trees, such as the "myall," "boree," the "oak," &c., will be exterminated, it is said, in a few years, as the stock eat all the young seedlings.

The myall is a species of acacia. It is found on the Salt Bush plains and on the Murray River, and from the Lachlan to the Barrier Range. The timber is hard, dark, and fragrant. It is suitable for cabinet work, and was formerly used by the aboriginal inhabitants for making spears.

The boree, known to science as *A. pendula*, is a very beautiful tree, attaining to a height of 40 feet, with diameter of 18 inches. The foliage is pale, or ash-colored. It is found on the Illawara, and Liverpool plains, and is said to be the only useful timber tree of the Lachlan morasses. The wood is hard, close-grained, and violet-scented. In the Blue Mountains the foliage is denser than in other parts of the colony. The reason of this is said to be the abundance of rich chocolate soil there produced by the decomposition of basaltic rock. In this soil are found some of the finest specimens of tree ferns, creepers, and orchids in the world.

ORGANIZATION AND FUNCTIONS OF GOVERNMENT FOREST BUREAU, ETC.

There is a forest conservatory bureau in Sydney attached to the department of mines. It has control of all the lumber cutting and planting. The field staff consists of 1 inspector, 28 forest rangers, and 10 assistants. It is the duty of the rangers to prevent, as far as practicable, the wasteful cutting of timber below a fixed girth on timber reserves. The department of lands has the power to create or revoke timber reserves. Permission to ring-bark timber on Crown lands is granted by the local boards and under such conditions as may appear advisable. Reports in regard to these matters are made by the rangers.

COST OF MANAGING FOR-

for New South Wales timber in the colony of Victoria and partly to the protracted drought, and to the suspension of public works, the timber for which being usually drawn from the government reserves. The forest revenue consists principally in the receipts from the reserves subject to royalty, licenses, for cutting and ring-barking timber, &c.

The following table shows the revenue and expenditure of the forest department for the years 1884 and 1885:

	Amount.	Equivalent in United States currency.		Amount.	Equivalent in United States currency.
Revenue, 1884:	£ s. d.		Revenue, 1885—Cont'd.	£ s. d.	
Revenue from reserves, subject to royalty	8,392 13 10	$40,843 03	Ring-barking fees.	39 2 6	$190 39
Ring-barking fees.	650 5 0	3,164 42	Revenue from all other timber and quarry licenses	8,695 10 0	42,316 64
Revenue from timber and quarry licenses	8,679 5 0	42,237 57	Seizures	539 17 6	2,627 29
Seizures	528 1 10	2,569 96	Total	13,863 2 8	67,464 90
Total	18,250 5 8	88,814 98	Expenditure, 1885:		
Expenditure, 1884:			Salaries	9,390 0 0	45,745 09
Salaries	9,521 13 11	46,337 34	Traveling and contingent expenses, including salaries of temporary employés	7,643 4 9	37,195 81
Traveling and contingent expenses	7,157 4 1	34,830 53	Indian and Colonial Exhibition.	171 6 0	833 62
Wattle planting	254 4 0	1,237 06	Wattle planting.	69 12 0	338 70
Catalpa	353 17 2	1,722 05	Catalpa	371 16 2	1,806 97
Cedar	193 15 3	942 93	Cedar	389 17 1	1,897 20
Total	17,480 14 5	85,069 91	Forest flora	110 1 6	535 67
Revenue, 1885:			Total	18,145 17 6	88,353 06
Revenue from reserves, subject to royalty	4,588 12 8	22,330 58			

FOREST PLANTING—METHODS, BOUNTIES, SCHOOLS, ETC.

The forest branch of the department of mines, as mentioned in a former part of this report, has charge of all the government operations in the way of forest planting

The forest rangers have very extensive districts assigned to them, and their duties, on that account, are very difficult to perform.

An acting ranger has been appointed at Lord Howe's Island, a small island belonging to New South Wales, situated about 900 miles from Sydney. There are also several rangers and assistants at Silverton, in the far west. Most of the forest officers are men of large and varied experience and evince a thorough knowledge of the work they have in hand, whilst some of them possess no little scientific knowledge, although previous to appointment they are not required to have undergone a course of training like that required of those in charge of the large forest estates in Europe and India.

The work of replanting forest trees has not been practiced to any great extent in New South Wales. Indeed, to show how little has been done in that way, I will mention that in the year 1885 out of an expenditure of £18,145 17*s.* 6*d.* ($88,353 06)

a sprinkling of pine and cedar, but such as have been planted are scattered at irregular distances along the route. The expenses incurred in planting them in this extended fashion, together with their liability to injury and the difficulty of watering them, compelled the department to discontinue the planting, except in particularly favorable localities. In addition to the operations of the forest department, the director of the Botanical Gardens, of Sydney, has a tree nursery under his charge at Campbelltown, 34 miles from the metropolis. This nursery is used principally for the growth of trees and shrubs to adorn the government reserves, parks, gardens, and grounds, &c., attached to the public buildings. Great care is taken in this nursery to propagate some of the most useful and ornamental indigenous trees of the colony, such as the myall, boree, black wattle, green wattle, the waratah, together with various palms, cedars, figs, &c.

Amongst the indigenous trees to which attention is paid, I must not forget to mention the "waratah," or Christmas tree, so called on account of its being so generally used for decorating purposes during the Christmas holidays. The waratah, properly speaking, is more of a bush than a tree, but it sometimes attains the height of 40 feet and a diameter of 15 inches. In the month of November it is covered with a mass of beautiful white flowers, but towards Christmas the calyces, which are very persistent, change to a bright red color, or to red mixed with white, which gives the plant quite a different appearance.

Much attention is also given to the cultivation of various kinds of fig trees, some of which are of gigantic size. They frequent the eastern slope, and are supported by great buttresses, which stand out from the tree in thin walls, sometimes 20 feet high. One of the finest specimens was named by Baron Muller *Ficus columnaris*, and it is said to attain greater perfection in Lord Howe's Island than elsewhere. It originates in the fork of some tall tree, which it destroys by sending forth strong limbs, from which rope-like roots descend until they reach the ground, when they enlarge into stems and become the centers from which other stems stretch forth.

The roots of this tree increase so rapidly and at the same time send out such gigantic branches that it is no uncommon thing to see the original tree at a height of 70 or 80 feet peeping through the fig, as if itself were the parasite on the real intruder. Within the angles or walls of the tree there is said to be room enough for a good-sized family to dine comfortably. The rich undergrowth of palms and ferns which find shelter beneath its fantastical branches add greatly to its weird and varied attractions.

The forest department does everything in its power to assist the public in regard to tree planting, and when practicable, without interfering with private enterprise, seeds and plants are furnished free of charge, together with much useful information and instructions [illegible] the same. As there is no department of agriculture [illegible] deal with noxious weeds and [illegible]gricultural

throughout the colony where the science of forestry will be taught among other branches of practical and scientific farming.

DESTRUCTION OF FORESTS—CAUSES AND RESULTS.

The forests of New South Wales and of other portions of Australia are destroyed in various ways, but principally by ring-barking. This process consists in simply cutting a ring about 6 to 10 inches wide round the tree with an ax or tomahawk. The time chosen for this process is in the autumn, when the sap has matured and is ready for repose. The destruction of forests in this way has become so great as to seriously attract the attention of the government. It appears to have begun about thirty years ago in the water-shed of the Hunter River, but it did not become very general until the inauguration of the system of what is called free selection, by which certain tracts of land were opened up to *bona fide* settlers (or to persons who had erected homesteads) at low prices. The free selectors usually chose heavily timbered districts, and in a short time the wholesale destruction of forests began. Ring-barking was thought to be the best means for clearing land, not only for small farms but for grazing purposes. According to an interesting and valuable paper on this subject, prepared by Mr. W. E. Abbott, for the Royal Geographical Society of New South Wales, the objections urged against this method were that the creeks and rivers would dry up owing to the increased evaporation, and that the rainfall would be reduced by the removal of the large condensing surface offered by the winds when heavily laden with moisture.

Mr. Abbott has given some practical illustrations resulting from his experience. In 1869 and 1870 he ring-barked the greater part of the water-shed of two creeks, and the whole of the water-shed of a third, being about two miles, and draining a well defined valley shut in by high ridges of basalt. He noticed, as soon as the timber was dead, that one of the creeks assumed the character of a permanent stream, and that the others were very greatly improved. In 1878 all three became permanent streams, and have continued such ever since. Previous to the ring-barking they were dried up during a portion of the year. Until these experiments were made it was regarded as the height of absurdity for any one to destroy timber for the purpose of producing water on his land. Now it is done every day. Mr. Abbott does not think that the destruction of forests will reduce rainfall, but he argues that when there is a large and regular rainfall there is sure to be a heavy forest growth, and that the forest is the result of the rainfall, and not the rainfall of the forest. Mr. Abbott attributed the increased flow of water on his land, first, to the fact that the roots of the trees decaying acted as a sort of subsoil drainage, leading the water down into the subsoil and afterwards allowing it to drain off slowly into the water courses, proving it to be of a temporary benefit only; second, that a large proportion of the rainfall which was formerly taken up by the roots of the growing trees and evaporated from the leaves was enabled to find its way to the creeks and rivers. Mr. Abbott

fungi, &c. If the drought lasts long enough, there can be no doubt about its destructiv agency, but there are often more effective agents for the destruction of forests than the drought, for during the driest seasons ever known in the colonies many trees were not affected at all. The injury done to the forests by bush fires is also very much exaggerated. These fires are of course more common during dry seasons than at other times. In the great conflagrations that took place in 1863 and 1865 it seemed that vast tracts of forest country had been fatally injured. The leaves assumed a sickly color, but the trees, except in a few instances, after two or three years showed marked signs of recovery from the scorching they had received. The foliage was much improved, and large numbers of shoots sprang up from their trunks.

The greatest bush fires ever known in Australia occurred on Thursday, the 6th of February, 1851, called Black Thursday. On that day the thermometer rose in Victoria to 118 degrees in the shade. The northern winds were charged with a fearful heat. Vast forests were in flames. There had been no rain for a considerable period, and fires seemed to break out everywhere. Stations, farm-houses, sheep, cattle, and even human beings were destroyed. The wind was so hot that it seemed to bear death upon its wings. A gentleman who reached Melbourne at that time stated that a chain of fire ran on both sides of him even to the margin of the road for a distance of over 50 miles. Like the floods of 1849 the disaster was looked upon as a visitation of Providence.

About ten years ago vast tracts of forest country were apparently destroyed by fire in New South Wales. The fire seemed to extend in a series of columns all the way from Sydney to Parramatta, a distance of 15 miles. After a period of seven years scarcely a trace of the conflagration was left.

In what are known as bush forests, where the trees are characterized by an extraordinary luxuriance and denseness of growth, fires seldom occur. The bush forests are usually found on the east side of the great dividing range or mountain slopes or terraces, where the soil consists of decomposed rocks, or on rich alluvial lands along the courses of rivers. The atmosphere in these forests even during the heat of summer is charged with moisture. Among the trees common to these forests may be mentioned the cedar, rosewood, pine, tulip-wood, silky oak, white maple, yellow-wood, native laurel, colonial deal, brush cherry, the myrtle, hickory, native tamarind, and others.

Bush fires occur more frequently among what are called open forests. These forests are composed principally of trees belonging to the Eucalypti, which I have described in a former part of this report.

The forests of Australia are occasionally injured by vast swarms of caterpillars. These insects grow in New South Wales to an extraordinary size and move in perfect columns, making parallel roads as [illegible] around the barrels of the trees, destroying both the

[illegible] forests in

of the opossum. He noticed that vast numbers of these animals flock to the gum trees growing near the water-holes, especially in time of drought. In order to test fully their destructive powers, he captured a few opossums and put them on the trees in his garden. He noticed that a single opossum would eat more than two hundred leaves in one night.

The animals showed great fondness for the young sappy leaves of the gum tree, and when very hungry were not averse to cherry leaves, light wood, and honeysuckle. It was noticed that they would not touch the tough, leathery leaves of the old gum trees when young ones were in reach. It was urged against the theory of the destructive powers of the opossum that on account of their heavy weight it was quite impossible for them to climb up the slender branches of trees to eat the leaves, but Mr. Macpherson noticed that the large opossums would eat the bark and leaves within reaching distance and that the young ones would go out on the branches, and, using their fore feet as hands, would bend the branches down towards them and nibble off the leaves before letting them go.

Mr. Macpherson noticed that the trees destroyed by the opossum assumed a spectral or ghost-like appearance, whilst those destroyed by caterpillars and other insects were nothing like so barren, the leaves in the latter case being eaten off in a very irregular and uneven manner. The insects would bite the leaf at the edges and again in the middle, and sometimes in both ways.

Mr. Russell, the government astronomer, in commending Mr. Macpherson's paper, said it should be remembered that large patches of forests die off, while all around them there was the usual healthy vegetation. Professor Liversedge, of the Sydney University, is of opinion that the decay of the gum trees in many cases is due to the exhaustion of the soil, although the same soil might support a flourishing growth of other forest trees, and that to obtain the best growth of trees it is necessary to have a rotation of crops, as in farming.

RECLAMATION OF SAND DUNES OR WASTE PLACES BY TREE PLANTING.

The question of reclamation of sand dunes or waste places by tree planting has never been a pressing one in New South Wales, on account of the sparsely settled condition of the country. With the exception of the work on the government reserves and along the railways, as mentioned in another part of this report, very little has been done in the way of reclaiming waste places, unless, indeed, I mention the reclamation of the sand drifts in the harbor at Newcastle. The plan adopted at Newcastle consists in the erection of brush or close paling fences running parallel with each other, about one or two chains apart, from the base to the top of the sand drift, to shelter the trees and prevent the shifting of the sand by the wind.

Mr. J. H. Maiden, F. R. G. S., the curator of the Technological Museum at Sydney, to whom I am indebted for much of the material of this report, strongly recommends the following indigenous trees for planting in sand dunes or waste places:

Acacia amata,

Casuarina.—Most of the species of this genus will grow in exceedingly sandy soil—for instance, the oak, swamp oak, forest oak, dwarf oak, river oak. The latter is sometimes called forest oak; scientific name, *Casuarina forulosa.* It frequents open forests from Illawara to Richmond River, and westward to Bathhurst and New England. The timber is very beautiful, remarkably heavy and strong; used for cabinet-work, shingles, &c.

The government plantations of catalpa have been successful in various parts of the colony, especially at Coolamundra and East Maitland.

The following is a list of trees planted at the latter places since 1882:

AT EAST MAITLAND.

221 *Catalpa speciosa.*

| 221 *Juglans nigra* (black walnut).

AT COOLAMUNDRA.

613 *Catalpa spsecisa.*
121 *Juglans nigra* (black walnut).
61 *Syncarpia laurifolia* (turpenti
94 *Eucalyptus* (various species).
29 *Grevillea robusta* (silky oak).
225 *Sterculia diversifolia* (kurrajong).
3 *Melaleuca leucodendron* (tea tree).
25 *Tristania conferta* (brush box).
83 *Pinus insignis* (Californian pine).

| 5 *Eugenia Ventenaltii* (water-gum).
18 *Quercus ilex* (evergreen oak).
51 *Fraxinus Americana* (American ash tree).
37 *Quercus virens* (evergreen oak).
35 *Laurus camphora* (camphor tree).
24 *Araucaria Cunninghamii* (pine tree).
8 *Olea Europœa* (olive tree).

The inspector of forests recommends the following trees and shrubs for planting on swampy land or land subject to inundations:

Blue-gum (*Eucalyptus globulus*).
Red-gum (*Eucalyptus rostrata*).
Flooded-gum (*Eucalyptus saligna*).
Swamp oak (*Casuarina suberosa*).
Belah (*Casuarina Cunninghamiana*).
Moreton Bay chestnut (*Castanospermum Australe*).
Brush box (*Tristania conferta*).
Swamp mahogany (*Eucalyptus robusta*).
Blue-gum (*Eucalyptus botryoides*).
Blackwood (*Acacia melanoxylon*).
Turpentine tree (*Syncarpia laurifolia*).
Alder (*Alnus glutinosa*).
Bamboo (*Bambusa arundinacea*).
Weeping willow (*Salix babylonica*).

Golden osier (*Salix aurea*).
Huntington willow (*Salix Russelliana*).
Pampas grass (*Gynerium argenteum*).
Supple-jack (*Flagellaria indica*).
New Zealand flax (*Phormium tenax*).
Cabbage-tree palm (*Corypha Australis*).
Bangalo palm (*Seaforthia elegans*).
Red cedar (*Cedrela Australis*).
Plane tree (*Platanus orientalis*).
Plane tree (*Platanus occidentalis*).
Tea tree (*Melaleuca leucodendron*).
Tea tree (*Melaleuca styphelioides*).
Tea tree (*Callistemon salignus*).
Messmate (*Eucalyptus amygdalina*).

The following list of plants, recommended for reclaiming sand dunes, is taken from the advance sheets of Mr. Maiden's new work entitled "The Useful Plants of Australia":

Agrostis.
Carex.
Cynadon.
Ehrartu.
Elymus
Festuca.
Imperat.
Lepidosperma,
Mesembryanthemum.
Panicum.
Pod.
Ragodia.
Spinifex.
Stipa.

quantity of timber returned by the forest rangers during the year 1886 was 62,786,456 superficial feet against 62,669,310 superficial feet for the year 1885. Of the quantity produced in 1886 about two-thirds are classed as hardwoods and cedar.

The following table shows in detail the quantity of the various kinds of timber returned for 1885:

Sawed timber, hardwood, and cedar	superficial feet..	57,418,631
Hardwood piles, girders, and logs	do....	3,219,679
Cedar, in log	do....	1,731,000
Paving blocks	do....	300,000
Total		62,669,310
Piles	do....	2,350
Do	running feet..	2,260
Sleepers	number..	31,407
Posts and rails	do....	185,600
Palings	do....	523,402
Spokes	do....	86,283
Felloes	do....	60,000
Dray-shafts	do....	546
Laths	do....	2,315,900

The total quantity of timber imported into the colony of New South Wales, exclusive of piles, sleepers, and shingles, &c., for the year ending December 31, 1886, was 64,604,793 superficial feet against 65,644,842 superficial feet for 1885. Of the imports for 1886 there were 23,561,175 superficial feet of dressed timber and 41,043,618 superficial feet of undressed timber, showing an increase in the dressed timber of 4,096,330 superficial feet and a decrease in the undressed timber of 5,147,161 superficial feet.

Quantity and value of timber imported into New South Wales for the years 1885 *and* 1886, *and countries whence imported.*

DRESSED.

Countries.	1885.		1886.	
	Quantity.	Value.	Quantity.	Value.
	Sup. feet.		*Sup. feet.*	
Great Britain	3,522,771	$159,840	6,404,526	$314,760
Victoria	689,058	49,210	869,540	53,470
South Australia	313,404	25,245	346,493	30,930
New Zealand	5,304,866	218,245	5,376,615	198,945
British Columbia	767,319	30,165	113,577	4,000
United States	3,436,799	178,325	4,479,598	187,350
Norway	5,423,341	218,600	5,762,179	207,675
France	3,550	2,250	5,288	2,875
Germany	300	15	171,072	6,500
Queensland	3,437	170	204	50
New Caledonia			32,083	1,210
Total	19,464,845	882,065	23,561,175	1,007,765

Quantity and value of timber imported into New South Wales, &c.—Continued.

UNDRESSED.

	1885.		1886.	
	Quantity.	Value.	Quantity.	Value.
Great Britain	1,732,186	$61,580	1,519,040	$58,225
Victoria	1,613,681	61,800	772,366	36,995
South Australia	473,484	38,810	662,426	54,570
Queensland	819,656	31,355	122,297	4,250
Tasmania	325,731	10,740	64,639	2,215
New Zealand	10,537,974	287,880	8,465,653	220,385
Western Australia	900	50	30,000	25
Figi	27,839	1,860	....	....
Point de Galle	4,000	500	....	....
Hong-Kong	525	95	5,338	355
British Columbia	9,485,774	272,675	1,808,416	40,000
United States	19,728,436	581,140	25,761,156	686,395
Norway	785,595	27,975	1,039,042	31,020
Sweden	477,314	23,850	513,004	21,000
Kaiser Wilhelm Island	86,907	5,750	....	....
Germany	80,777	3,635	53,693	2,275
Belgium	....	....	1,300	25
New Caledonia	....	....	127,545	3,200
New Guinea	....	....	4,000	250
Borneo	....	....	93,700	3,350
Total	46,180,779	1,409,695	41,043,618	1,164,535

It will be seen from this table that the United States furnishes nearly one-half of the total timber imports, and that New Zealand comes next. The imports, however, from New Zealand declined from 15,842,840 superficial feet in 1885 to 13,842,268 superficial feet in 1886. There was a still greater falling off in the imports from British Columbia during the same period. In 1885 New South Wales imported from British Columbia 9,485,774 superficial feet of undressed and 767,319 superficial feet of dressed timber, but in 1886 she only imported 1,808,416 superficial feet of the former and 113,577 feet of the latter, this showing a falling off in the total timber imports from British Columbia during the year of 8,331,100 superficial feet. The imports, however, from the United States have increased steadily from year to year.

IMPORTS OF LUMBER FROM THE UNITED STATES.

The popularity of American lumber in New South Wales is very forcibly illustrated by the extraordinary increase in the quantity and value of the imports. In 1881 the imports of dressed and undressed lumber from the United States amounted to only 2,000,197 superficial feet, valued at $110,260. In 1886 they were 30,240,754 superficial feet, valued at £174,767 ($673,785.)

The subjoined table shows the quantity and value of the imports of dressed and undressed lumber into the colony of New South Wales from the United States for each year from 1881 to 1886, inclusive.

	Dressed lumber.		Undressed lumber.		
				Value.	Equivalent in United States currency.

EXPORTS OF TIMBER.

The annual export of timber produced in the colony, although small, has materially increased since 1881. In that year it was only 4,125,896, but in 1886 it was 13,369,777.

Victoria received 10,553,955 feet of undressed and 92,584 of dressed, and the remainder was distributed amongst Queensland, Tasmania, and other colonies.

The following table shows the quantity of dressed and undressed lumber, principally of foreign produce, exported from New South Wales for each year from 1881 to 1886, inclusive.

Year.	Quantity.	Year.	Quantity.
	Superficial ft.		*Superficial ft.*
1881	4,125,896	1885	9,981,622
1882	5,711,868	1886	13,369,777
1883	8,611,123	Total	56,039,497
1884	14,239,211		

CUSTOMS DUTIES.

There are no bounties of any kind upon the importation of lumber into the colony of New South Wales, but on the contrary the trade is severely handicapped with exorbitant customs duties. The duties have always been large, but last year they were heavily increased. The tax upon dressed lumber was increased from *2s.* (48 cents) to *3s.* (72 cents) per 100 superficial feet, and upon undressed from *1s.* (24 cents) to *1s. 6d.* (36 cents) for 100 superficial feet. Laths, which heretofore were admitted free, now pay *9d.* (18 cents) per 1,000, and dressed laths the same as dressed lumber. Palings are taxed at *1s.* (24 cents) per 1,000. Shingles at *1s.* (24 cents) per 1,000. These duties have awakened no little opposition and are regarded as presenting an anomaly amongst a people professing to be wedded to the principles of free trade. The colony of Victoria, which for years past has been a stanch advocate for protection, admits all undressed lumber free, and the duty on dressed is *1s. 6d.* (36 cents) per 100 superficial feet, one-half less than that of New South Wales. Shingles are taxed in Victoria at *6d.* (12 cents) per 1,000, against *1s.* (24) cents in New South Wales. The New South Wales timber duties have been in operation about a year, and were intended to lessen the imports of the easily-wrought American lumber and promote the use of Australian hard wood, but the contrary seems to have been the result, for the home-grown woods are no more popular than before, while the imports of American timber have largely increased.

DEALERS IN PLANTS, SEEDS, ETC.

The various establishments of nurserymen and seedmen of Sydney will compare very favorably with those of the chief metropolitan cities of Europe and America. Vast sums of money have been expended upon improving their grounds and variety of

Graham & Co., Lilydale Nursery, Livingston street, Marrickville.
Ferguson & Co., Australian Nursery, Double Bay, Sydney.
Somerset Nursery, George street, Parramatta.
Searl & Son, Blair Athol avenue, Petersham, Sydney.

FOREST LAWS.

The only forest laws of this colony are included in the Crown lands act of 1884, now in force, a copy of which I forward with this report to the Department of State, Washington, D. C., under separate cover, marked "A." But as the act is a very complicated and voluminous one, occupying, with the forms and regulations thereunder, nearly two hundred closely printed pages, and as the sections referring to the forests are scattered among much irrelevant matter in various parts of the volume, I have thought best to separate them altogether from other parts of the act, and append them consecutively at the close of this report.

It will be seen from the act that sections 87 and 88 provide for granting leases to scrub lands at nominal rents, under conditions to which I have referred enforcing the clearing and destruction of the scrub. Sections 93 and 95 relate to permits for ringbarking timber. Section 98 defines the rights of holders of grazing leases or licenses in regard to cutting timber. Sections 112 and 116 deal with the state forests, timber reserves, licenses, and permits. Section 133 imposes penalties for violation of the regulations for cutting timber. It will be seen by this section that all persons, unless legally authorized, when found in possession of lands, whether upon Crown lands, reservations, or dedications, will be liable to a fine of £5 ($24.33) for the first offense, £10 ($48.66) for the second, and £20 ($97.33) for the third or subsequent offense, and that holders of Crown lands under lease or license shall not obstruct any government surveyor or authorized officer from entering at any time on any part or portion of their holdings.

TIMBER REGULATIONS.

The timber regulations are printed entire in the Crown lands act. These comprise a carefully compiled code of rules for regulating the state forests and timber cutting, ringbarking, &c. It will be seen from these regulations that there are in New South Wales two classes of government reserves for the preservation of timber—one comprising the state forests and the other the timber reserves. The second class is again divided into three sections, A, B, C.

But although these reserves are systematically arranged, the minister of mines, should it be deemed expedient, has the same power at any time to alter the classification, as he also has to close a whole or part of a reserve, if he considers it prudent and beneficial to any

tioned that they are avail-

serve,

trees at a height of five feet from the ground. The prescribed girth for hard woods is as follows:

Description of timber.	Girth.
	Ft. *In.*
Black-butt and yellow wood timber	7 6
Red-gum, gray-gum, woolly-butt brush, or white box, and turpentine timber	6 6
Blue-gum, spotted gum, messmate bloodwood, mountain ash, mahogany (forest), and iron-bark (red, gray, and broad leaved)	6 0
Peppermint, or redwood, and swamp mahogany	5 6
Stringy bark	5 0
Blackwood, and yellow, and white box	4 0

For soft woods, the minimum girth prescribed is:

Description of timber.	Girth.
	Ft. *In.*
Red cedar	9 0
Hoop or Moreton Bay pine	7 6
White beech	7 0
Lilybark and rosewood	6 0
Black, red, or white pine, and swamp oak	3 0
Forest oak	2 3

With the exception of the wattle and ring-barked trees, no stripping of bark from standing trees is allowed, and the tops are ordered to be cut off trees within seven days after felling. The kurrajong, quandong, and such other trees as may be specified from time to time, are exempted altogether from operations, excepting in time of drought, when the leaves of the kurrajong may be used as food for stock.

Among other provisions applying to permits and licenses may be noticed the regulations: (1) Demanding particulars of quantity, description, and brands of the timber claimed to be sent to the forest ranger of the district within twenty-one days after January 1, April 1, July 1, and October 1; (2) prohibiting the felling of trees within a chain and a half of any navigable river, unless a particular tree is marked for such a purpose by some one in authority, and (3) respecting the amount of timber any person is allowed to hold, the stated quantity being 50,000 superficial feet. A separate certificate must be obtained for every portion in excess, although the minister has power in cases of large contractors to increase the maximum number of feet. Lastly, lands or timber reserves or state forests that are not leased may be granted as sites for saw-mills to the extent of ten acres to holders of timber licenses, or permits and areas of 160 acres for the agistment of stock used for drawing timber by licenses.

For your further information upon the forests of Australia I will refer you to my special report entitled "The Timber Trade of New South Wales," published in the Consular Reports, No. 65, for January, 1886.

[Extracts from the Crown lands act of New South Wales, referring to forests and timber regulations.]

87. Scrub lands may be leased in areas not exceeding 10,240 acres nor less than 640 acres, and for a term not exceeding fifteen years, to any person, subject to such conditions as to clearing and destruction of scrub as may be defined by regulations, at an annual rental of not less than 2*s.* 6*d.* per section of 640 acres for the first five years, 5*s.* for the next five years, and £1 for the last five years: *Provided*, That it shall be lawful for the minister, on the recommendation of the local land board, to forego the rent for any period not exceeding five years. Every lessee of any portion of scrub lands shall, within the time and according to the manner prescribed, pay the rent as determined by the minister, after appraisement by the local land board, into the treasury, and shall, at the time and in the manner prescribed, satisfy the local land board that he has commenced and is continuing to fulfill the conditions of his lease as to the clearing and destruction of scrub on the leased land; and if any lessee shall fail to pay his rent or to satisfy the said board as aforesaid, the minister, on the recommendation of the said board, may declare his lease to be forfeited.

88. It shall be lawful for any pastoral or homestead lessee whose leased land contains scrub or other noxious undergrowth to apply in the prescribed manner to the minister for the conversion of the portion of land under lease containing such scrub or undergrowth into a lease of scrub lands under the last preceding section for any term not exceeding fifteen years; and if the local land board shall recommend such conversion the governor may resume from the lease such portion of land as the said board shall consider desirable, and may grant a lease thereof to the applicant under the said section: *Provided*, That the lessee shall be entitled to a proportionate abatement or refund of any rent paid by him under his pastoral or homestead lease for the unexpired portion of any year for which he has paid rent in advance: *Provided further*, That any applicant for a scrub lease under this or the next preceding section shall pay for the survey thereof: *Provided, however*, That no pastoral or homestead lessee shall be granted a lease of such scrub land other than within the land held under lease by himself.

Leases may be granted for special purposes.

90. The governor may lease by auction or otherwise, for a term not exceeding fifteen years and in areas not exceeding in any case 320 acres, Crown lands for any of the purposes hereinafter specified, that is to say, for dams, tanks, irrigation works, wharves, bridges, punt-houses, ferries, bathing places, landing places, sawmills, brick-kilns, lime-kilns, slaughter-houses, tanneries, wool-washing establishments, quarries, fisheries, building or repairing ships or boats, tramway purposes, obtaining guano, shells, limestone, loam, brick-earth, gravel, or ballast, or for an inn, store, smithy, bakery, or mail station in sparsely populated districts, or for any purpose declared by the governor by proclamation in the Gazette to be a purpose within this section, and may determine the upset rent thereof, if let at auction, or the annual rent, if let otherwise, not being in either case less than £10 per annum; and may annex to any such lease such conditions, reservations, and provisions as he may deem fit: *Provided*, That leases may be granted at a less rental to contractors of public works for purposes connected with the construction of such works during the term of contract. If it should appear to the satisfaction of the governor that the land comprised in any such lease is not used and occupied *bona fide* for the purpose for which the same has been made, or that default has been made in any condition, he may declare such lease forfeited, together with any improvements erected on the land and any rent paid in respect thereof.

91. The governor shall, notwithstanding the provisions of the "mining act of 1874," impose a royalty of not less than 6*d.* per ton on coal raised from land which may be hereafter leased. And such royalty shall be in addition to or in substitution of any rent payable by such lessee under the said act, but shall not affect or prejudice any other condition of the lease. And for the purpose of giving effect to the [illegible] the governor may make regulations prescribing the time [illegible] the manner of enforcing such pay-

Ringbarking by Lessees.

93. Every lessee of Crown lands desiring to ringbark trees upon his leasehold land shall obtain a permission to do so from the local land board, and in his application, in the prescribed form addressed to the land agent, shall describe the boundaries and area of the land upon which he proposes to ringbark; and in regard to any land not comprised within a timber or forest reserve, the board may, in their discretion, refuse or grant permission for the same after such inquiry and upon such conditions as to them may seem necessary. And any lessee who shall, without such permission, ringbark trees on a leasehold, or shall cause or knowingly permit or suffer the same to be done, shall, on conviction before any two justices of the peace at the court of petty sessions nearest to such leasehold, be liable for the first offense to a penalty of not less than 1 shilling nor more than 10 shillings for each tree so ringbarked, and for a second or subsequent offense be liable to a like penalty, and to the forfeiture of his lease.

94. Whosoever shall ringbark trees, or strip bark from trees on Crown lands, without holding such permission, or in violation of any condition thereof, or without a written authority under the hand of the lessee of such Crown lands, shall, on conviction as aforesaid, be liable to a penalty for each tree ringbarked or stripped of not less than 1 shilling nor more than 10 shillings.

95. Every information for an offense under any of the two preceding sections shall be laid by some officer of police or person specially authorized by the minister. And if, at the hearing of such information, any question shall arise whether any person holds a valid permission to ringbark, the burden of proof thereof shall be on the person who claims to hold such permission.

General provisions affecting leases, lessees, and licenses.

96. Every lease shall be liable to forfeiture if any rent be not paid within the prescribed period or upon breach of any condition annexed to such lease; but forfeiture for non-payment of rent may be prevented by payment thereof with an additional sum equal to five per cent. of the amount of rent due within three months of the due date thereof, or of ten per cent. of such amount within six months of such date; but no forfeiture shall operate to extinguish any debt to the Crown in respect of such rent.

97. Any sums paid as rent for runs, under the provisions of the acts hereby repealed, upon unexpired portions of existing leases, shall be credited towards payment of rent or license fee under the provisions of this act, and such sums shall be available for the purposes of refunds under the provisions hereinbefore contained.

98. The following provisions shall govern all leases and licenses granted under this act and the holders of such leases or licenses, namely:

(I) No lease or license other than special leases shall confer any right to remove material from the leased land, or to sublet such land for other than grazing purposes, or to prevent the entry and removal of material by authorized persons.

(II) Lessees and licensees may take from land under lease or license to them not comprised within a timber or forest reserve such timber and other material for building and other purposes upon the land under lease or license as may be required by them as tenants or licensees respectively.

(III) No lessee or licensee shall prevent other persons duly authorized in that behalf either from cutting or removing timber or material for building or other purposes, or from searching for any mineral within the land under lease or license: *Provided*, That nothing in this subsection shall apply to a conditional lease as regards the taking or removal of timber or other material for building purposes.

99. The following classes of lands shall be exempt from pastoral lease and homestead lease:

(*a*) Town and suburban lands and lands reserved or set apart by notice in the Gazette for towns or villages or suburban settlements.

(*b*) Lands under lease or lawful occupation for mining purposes.

(*c*) Lands dedicated to any public purpose.

(*d*) Lands temporarily reserved from sale for commonage.

(*e*) Lands reserved from lease under any of the hereby-repealed acts until the reservation thereof shall have been revoked under the provisions

100. If any holder of a pastoral or

may recommend that the said rate be retained. On receipt of any such recommendation, together with any further report from the said board which the minister may require, he shall determine the matter of the application and fix the fair annual rental of the land for all purposes of this act, which shall, upon notification in the Gazette, be the rental payable under this act in respect of such land. But no such reduction shall operate for a longer period than the unexpired portion of the five-year term then current, as hereinbefore provided: *Provided, also*, That no such lessee shall be entitled to make any such application for reduction of such minimum rate unless he shall have duly paid the rent fixed for the current year, pursuant to the provisions hereinbefore contained; but such lessee shall be entitled to a refund of the amount paid by him in excess of any reduced amount so notified as aforesaid: *Provided, lastly*, that notwithstanding any such such reduction so made, the minister may, on the expiration of the said five-year term for which such reduction shall have been made, direct that the rental shall for the residue of the term of the lease, or for the next period of five years of such lease, be restored to the prescribed minimum rate. or be subject to appraisement by the local land board, and in either case such direction shall be notified to the lessee in the prescribed manner. A return of all rents, if any, reduced under this section shall be laid before Parliament within fourteen days after the commencement of each session. The several provisions of this section shall equally apply to all occupation licenses and their holders and to the license fees paid or made payable in respect thereof.

State forests—timber reserves—licenses—permits.

112. It shall be lawful for the governor by notification in the Gazette to proclaim any areas of Crown lands therein described to be state forests and in like manner to reserve from sale any such areas as timber reserves for the purpose in each case of preserving under regulations in that behalf to be made by the governor the growth and succession of timber trees and of preventing as far as practicable the destruction and exhaustion of such state forests.

113. State forests may be subdivided into such blocks as the minister may think fit. For the purpose of carrying out such subdivision all existing forests and timber reserves may be reserved from sale, lease or otherwise as the minister may think proper until so subdivided.

114. Any state forest or any portion thereof may by notification in the Gazette be dedicated or reserved for a specific period by the governor for the conservation of timber, and upon publication of such notification such forest or portion thereof shall not during the term of reservation be open to timber or other licenses or permits under the provisions of this act.

115. It shall be lawful for the governor to frame regulations for the issue of licenses or rights to cut and remove timber on state forests and also for the issue of permits to cut and remove timber from timber reserves and also for the issue of wood-cutters' licenses and of licenses and permits to dig for and remove from state forests, timber reserves, or Crown lands, whether under lease or not, any gravel, stone, clay, shells, or other materials subject to the following provisions:

(I) The rights or licenses to cut timber on a state forest shall be for one or more specified blocks in such forest, and may be sold by auction at such place as may be determined by the minister, or by tender, as the minister may think fit.

(II) Such rights or licenses in state forests shall be for a term not exceeding one year, unless in special cases the minister may think fit to extend such term, but no such extended term shall exceed three years.

(III) The upset rent shall not be less than £10 per annum for each block of 640 acres, and a proportionate amount for each 160 acres in excess of that area. And every holder of a right to cut timber shall, in addition to his rent, pay such royalty, according to the class of timber cut, at such times and places, and subject to such conditions, as may be fixed by the regulations.

(IV) Permits to cut and remove timber on timber reserves may be issued for a year or any less term not being less than one month, at an annual fee of not less [illegible] fee for shorter terms. Such permits may also be [illegible] to be fixed by regulations for [illegible] mills, for any

such right, license, or permit, and may fix the rents or fees to be payable by the holder of any license or permit wheresoever the same shall not have been fixed by this act, and may provide for the forfeiture of any rights, licenses, or permits for the enforcement of rents, royalties, or fees for the removal of felled timber, for the licensing of sites for saw-mills and the agistment of stock, for the limitation of girth of trees to be felled, for the issue of wattle-bark permits for the marking of logs of felled trees, for the seizure and sale of timber cut without authority or upon which the royalty has not been paid, and for defining the power and privileges conferred by rights, licenses, and permits. And such regulations may also provide for the imposition of penalties and fines for the infringement or violation of any such regulation made under the authority of this act; but no such penalty shall exceed the sum of £20, exclusive of the value of the material taken or destroyed.

116. The breach of any condition or obligation, or the failure to porform any act or matter specified in any such right, license, or permit issued under the authority of this act, shall have the effect of forfeiting such right, license, or permit upon a declaration of forfeiture by the minister.

133. Any person, unless lawfully claiming under any subsisting lease or license, or otherwise under any act hereby repealed, or under this act, or under any act in force for the regulation of mining, who shall be found occupying any Crown land or land granted, reserved, or dedicated for public purposes, either by residing or by erecting any hut or building thereon, or by clearing, digging up, or inclosing or cultivating any part thereof, or by cutting timber, other than fire-wood, not for sale thereon, or by obtaining stone therefrom, or otherwise, or who shall strip or cause to be stripped the bark of any tree thereon, shall be liable, on conviction, to a penalty not exceeding £5 for the first offense and not exceeding £10 for the second offense and not exceeding £20 for the third or any subsequent offense: *Provided*, That it shall not be lawful for the holder of any leasehold under this act to obstruct any Government surveyor or other authorized person from entering upon such leasehold whenever such surveyor or authorized person may require to do so.

THE SICK-INSURANCE LAW AND ITS OPERATION IN GERMANY.

REPORT OF CONSUL MILLAR.

It is well known that the "*Krankenversicherungs-Gesetz*," or sick-insurance law, promulgated by the German Emperor in June, 1883, is one of a series of measures which the German Government believes will check the spread of social democracy and show the working classes that the benefits expected from a socialistic revolution are attainable under the present constitution of society. The novelty and importance of such a legislative step are obvious, and the success of the experiment is a matter of such interest to all states in which the working classes form a prominent factor that I have felt it my duty to submit the following brief sketch of the general principles of the law and of its application in detail within the limits of my consular district.

The sick-insurance law extends to persons of both sexes, minors or adults, and includes workers in mines, salt works, iron works, railroads, and internal steam navigation, handicrafts in general, factories and establishments in which steam or any elementary force (wind, water, gas, hot air, &c.) is permanently used as a driving power; in short, all hand workers, with the exception of clerks, salesmen, and similar employments, and even these may be included by resolution of the local authority.

The *Betriebskasse*, or factory fund, may be established by any employer of labor who employs at least fifty hands and makes membership of the fund a condition of service in his factory. The statutes must conform to the requirements of the law, and the action of the fund is subject to control by the central sick-insurance department, but the management rests with the employer and his hands.

The *Ortskrankenkasse*, or local trade fund, is intended to meet the numerous cases not covered by the *Betriebskasse*, or factory fund. The local authority is directed to establish such a local trade fund for every trade or union of connected trades in which there are at least a hundred members. The contributions to the fund are shared between masters and men in the proportion of one-third to two-thirds, and the masters are entitled to a proportionate representation of one-third of the votes in the general meeting and board of management.

For purposes of joint management the local trade funds of a district are allowed to form themselves into a union. A single board of management then conducts the business of all the local funds. These *Ortskrankenkassen*, or local trade funds, are the main feature of the new legislation. After their foundation they become independent bodies, subject only to the supervision of the central sick-insurance department, and as they are usually more powerful than the other funds of the district, they tend to fix the standard to which the rest must conform.

Ordinary day laborers, who belong to no special trade, are provided for by the *Gemeindekasse*, or communal fund, which only differs from the local trade funds in having a simpler organization and lower contributions.

Insurance clubs in existence when the act came into force were permitted to continue on condition that they revised their statutes within a limited time to comply with the standard provided by the law.

The standard of benefits offered by the fund is as follows:

In the *Ortskrankenkassen* or local trade funds:

(*a*) From the beginning of sickness free medical treatment and medicine, with such medical appliances (trusses, spectacles, &c.) as are necessary to enable the convalescent to resume work.

(*b*) From the third day of sickness pecuniary support for thirteen weeks to the extent of one-half the "average daily pay of the patient's class." The "average daily pay" is a legal standard fixed by the local authority. At the option of the management of a fund, the statutory amount of support may be increased to three-fourths of the average daily pay, and the time extended from thirteen weeks to a year. In certain cases treatment in a hospital may be substituted for the benefits under (*a*) and (*b*).

(*c*) The same provisions to apply to females for three weeks after the birth of a child, with optional statutory extension to six weeks.

(*d*) Burial money on the death of a member to the amount of twenty days' average pay, with optional entension to forty days' pay.

(*e*) Local funds may resolve to grant burial money on the death of a wife or child to the amount of two-thirds and a half respectively of the amount granted on the death of a member.

(*f*) Benefits provided by statute to sick dependents of a member, who are

best exhibit the operation of the law by describing the organization and its results in the Leipsic district.

The industrial interests of Leipsic town and the adjoining parishes are so inseparable that the superior board of control—in this case the county government—ordered their union for the purposes of this act into one district, with the Leipsic city council as an organizing body. The Leipsic sick district accordingly includes the city of Leipsic, with thirty-seven adjoining parishes and a number of extra-parochial places within the same limits.

The first duty of the organizing body was to determine the number of funds to be established. Thirty-six sections were at first fixed on, but eventually only the following eighteen *Ortskassen* or local trade funds were established, each of them consisting of a group of related trades and occupations:

Stones and earths (minerals, coal, quarries, iron-works, potteries, glass, &c.).
Metal-workers.
Musical-instrument makers.
Chemical industry.
Textile industry.
Paper, leather, and India-rubber.
Bookbinders.
Wood and carving industry (including straw, ivory, brush,and other trades).
Foods and drinks.
Tobacco industry.
Tailoring and millinery.
Hatmakers, furriers, glove and shoe makers.
Barbers, hairdressers, and baths.
Building industry.
Printing and the allied trades.
Trade assistants in general, exclusive of those who have received a commercial education.
Transport and transit industry.
Waiters.

A *Gemeindekasse* or communal fund was also established for ordinary day laborers.

The next step was to determine the "average daily local wages," which the law fixes as the standard by which assistance is to be measured. This was a task of no small difficulty, and demanded a thorough investigation of the earnings of the work people. In a previous report I gave at length the results of the investigation for Germany into the wages of day laborers. The same work had to be undertaken for all classes of skilled workmen. Eventually six classes of work people were formed, with average daily wages and rates of contribution as shown in the following table:

Classes and actual wages.	Average daily local wages fixed for the sick insurance act.	Daily contribution of a member to the fund.
1. Members whose daily wages exceed 3.50 marks		
2. Members whose daily wages are b[illegible]		
3. Adult males whose [illegible]		

The benefits granted by the funds are: Under (*a*), (*b*), (*c*), and (*d*), previously mentioned, the minimum provided by the act, except as regards the duration of help, which is extended to twenty-six weeks. Under (*e*), 15 marks on the death of a wife, 9 marks on the death of a child under fourteen. Under (*f*), free treatment and medicine for thirteen weeks.

The similar table for the *Gemeindekasse* is as follows:

Class.	Average daily local wages under the act.	Sick-money.	Daily contribution to the fund.
	Marks.	*Marks.*	*Pfennig.*
Men	2.00	1.00	3
Women	1.33⅓	0.67	2
Girls and boys	0.83	0.42	1¼

This was the organization of the funds in December, 1884, when the new law came into operation. A further step, which was not taken till nearly a year later, may be mentioned here. This was the joining of the 18 funds in an *Ortskrankenkassenverband*, or local trade fund union. The reasons for this step will appear later on. A third, and, it would seem, very unpleasant duty was the inspection of the so-called "free funds," which had previously been formed either under an imperial act of 1876 or under some act of the local government. Where the statutes of a free fund did not come up to the requirements of the new act, the fund was required either to revise its statutes or dissolve. The majority of the funds possessed statutes more or less defective, and showed no disposition to accept either of the alternatives offered them. In the end they obeyed, but rather from compulsion than conviction.

These are the principal features of the work of organization. It will readily be understood that I have omitted all mention of the multitude of petty details and difficulties which had to be mastered. But by the spring of 1885 the new law was fairly in operation.

RESULTS OF THE LAW.

From the organization I now pass to the working of the new funds. The reception of the new law by employers and work-people was by no means cordial. The Leipsic Trades' Chamber (*Gewerbe-Kammer*), reporting on this subject in the middle of 1885, traces the dislike to three causes. It would seem that considerable confusion and delay occurred in preliminary stages of the organization, a misfortune which was perhaps unavoidable, considering the want of experience of all concerned. The period for the reorganization of the free funds had, therefore, almost elapsed before these funds were in- and great excitement arose when it was jected for more

Even when this excitement was allayed there still remained a great indisposition on the part of the people to contribute to the state-established funds. They objected that they would lose their independence. In explanation of this it must be stated that in former years many masters had established funds as a means of using compulsion on their work-people to remain in their service. The workers, on the other hand, established the free funds to counteract the movement of the masters and insure freedom of movement and action. The people are hardly to be blamed for not seeing at once that the new law, by introducing a uniform standard for the whole Empire, rendered the masters powerless to use a fund as a weapon in industrial warfare. A third cause of the luke-warm reception of the act is said by the *Gewerbe-Kammer* to have been the reluctance of the masters to accept the duties imposed on them. Some even went so far as to exclude members of the local trade funds from their service. Others, however, headed by the Leipsic city council, voluntarily paid out of their own pockets the contributions of their people.

This opposition is now dying away, especially among the married members, to whom the funds offer substantial benefits. Among the younger members, however, and some of the masters, considerable apathy still existed at the date of the latest reports.

In the face of these difficulties the pecuniary prosperity of the funds can hardly be expected to be satisfactory; and we shall find that, in fact, they do fall short of the standard set up by the law. The general balance sheet of the eighteen local trade funds at the end of 1885 showed an income of 447,575.79 marks, and an expenditure of 346,740.61 marks, leaving a balance of 100,835.18 marks made up of 106,193.86 marks cash balance of fourteen funds, and a deficit of 5,358.68 marks on four others. From this balance of 100,835.18 marks, the law requires a reserve fund of 10 per cent. to be put aside. Estimating this 10 per cent. only on the fourteen funds that were worked at a profit, 37,536.03 marks required to be reserved, so that the funds seemed, on the whole, to be some 63,000 marks to the good. But against this has to be set an amount of 65,600 marks due to the Leipsic city council for organizing the movement; and if this be taken into consideration, the movement cannot satisfy all its liabilities and still lay by 10 per cent.

As the facts became clear during the course of the year, the managers of the funds took measures to put the organization on a sounder basis. Their first step was to petition the city council not to press for its money. Fortunately the municipality of Leipsic is wealthy, and an additional charge of 60,000 marks in one year's budget is not a ruinous matter. The city accordingly presented the funds with the expenses of organization and thus put them in a position of comparative solvency. The second step was the formation of the funds into a union in the manner prescribed by the act. In addition to the economy of management thus attained, the cash balance, although split among the sections for purposes of account, becomes practically available for all of them alike. A section which may be temporarily in difficulties is thus relieved of the necessity for immediately revising its rates or benefits and

The result of the working of the united funds for the year 1886 was as follows:

	Marks.	Marks.
Income		513,304.93
Expenditure:		
Doctors' fees	104,759.21	
Medicine, &c	58,599.42	
Sick-money	200,788.33	
Burial-money	22,039.25	
Hospital charges	29,488.34	
Management	75,419.76	
Miscellaneous	10,100.27	
		501,194.58
Balance		12,110.35

An amount, however, which falls short of the legal reserve of 10 per cent. on 29,372.05 marks by 17,261.70 marks; so that, to keep up the reserve, the fund has again had to draw on the amount presented to it by the city. It is as yet too early to say how far the experience of these two years is normal; but in any case it is clear that the fund will only be able to save money by judicious and economical management. In this connection the sum of 75,000 marks for expenses of management seems unusually high, though it must be borne in mind that the act requires a great deal of clerical work to be done, and that the contributions in question are always small.

As a further elucidation of this important branch of the subject I add a table of the total receipts and expenditures of each section for the last two years, together with some other details which present interesting features.

Section.	1885.		1886.		Balance at end of 1886.
	Income.	Expenditure.	Income.	Expenditure.	
	Marks.	*Marks.*	*Marks.*	*Marks.*	*Marks.*
Stone and earth	28,934	31,484	35,877	50,858	-14,981
Metal workers	42,628	37,511	50,806	49,637	6,287
Musical instruments	7,103	6,056	8,980	9,228	799
Chemical	14,352	15,154	16,466	17,868	-1,403
Textiles	8,053	9,247	9,141	11,782	-2,641
Paper, &c	16,257	14,082	15,734	16,114	1,794
Bookbinders	9,008	6,129	11,034	12,343	1,569
Wood and carving	21,028	19,403	23,630	24,657	598
Foods and drinks	31,298	18,152	30,592	26,632	17,106	
Tobacco	2,790	3,603	3,543	5,336	-1,793
Tailors, &c	24,402	18,137	28,130	28,969	5,425
Hats, furs, gloves, &c	11,336	9,206	15,159	13,496	3,794
Barbers	3,959	2,349	4,891	3,785	2,717
Builders	72,081	61,045	95,797	93,808	13,025
Printers	25,560	10,217	28,337	25,826	8,854
Trade in general	84,828	47,693	86,905	69,182	54,859
Transport	16,714	14,143	19,010	20,313	1,267
Waiters	27,245	14,130	29,273	21,361	21,028
	447,576	346,741	513,305	501,195	118,304

1886.

These figures throw a curious light upon some of the habits of the working classes. It will be observed that the fund reforms itself at least once every year, and that few, if any, of the original members can now be left in it. As regards sickness, it is remarkable that stone and earth workers, the chemical and textile industries, and tobacco workers have from the beginning had a deficit. Several sections have worked at a loss in the past year, and the principal stays of the movement are the waiters, food and drink workers, and the general body of business assistants. I should, however, mention that the management has informed me that porters, messengers, and similar persons are registered in each section, so that the figures must be used with a certain amount of caution when they are compared with other statistics of the same kind.

Besides the direct results of the sick-insurance law, one or two indirect results deserve a brief mention. One point is the prospective influence of the law on the older free funds, which as I have already observed, were frequently instituted as a check on the masters. There are signs that the work-people now begin to see that, with the loss of this special feature, the free funds have lost all reason for existence as a separate fund, and that the interests of labor are better served by concentration into one large solvent fund, than by division into a number of smaller and less reliable ones. These reasons have in fact already been given by managers for merging a special fund into the general local trade fund. The removal of the whole subject from the arena of party strife is not the least of the good results of the law.

A second point of importance is the influence of sick-insurance on the relief of the poor. Although the sick-funds were by no means intended as a kind of poor relief, it is only natural to suppose that the work of the funds may diminish to some extent the amounts hitherto spent in relief of the poor. In the only case in which, so far as I am aware, the statistics have been examined with this object, the result has been very favorable. In Hamburg, *e. g.*, the following calculations have been made. The number of sick poor who would have been cared for out of the poor rates in 1885 would have been on the average of the previous four years as follows: 293,223 days of sickness at 1 mark, and 38,464 at 75 pfennigs. The actual numbers, however, were only 230,123 and 34,254, so that the city computes the saving on the estimated number at 66,257.50 marks. To this, however, must be added a further sum of 14,514.50 marks, since the sick-funds under the insurance law pay 1.20 marks per day for their members instead of 1 mark or 75 pfennigs. The total estimated savings are therefore 80,772 marks; and, as the management of the fund only costs the city 59,099 marks, it is reckoned that Hamburg saves some 21,673 marks a year by the introduction of statutory insurance. Such highly favorable results cannot be expected in any other city in Germany, because in Hamburg an exceptionally large proportion of the population belongs to some insurance fund.

A comparison of the Leipsic *Krankenhaus* or city hospital for 1884 with those of 1885 leads to a similar result. The number of days of treatment diminished very slightly in 1885—175,017 as against [illegible] in 1884. The proportion charg[illegible]

A few figures, in conclusion, as to the present condition of the movement in Germany may be of interest. The total number of persons insured under the act is as follows:

Items.	Number of members.	Proportion per 1,000 inhabitants.
Local trade funds	1,534,888	32.8
Factory funds	1,261,200	26.9
Registered funds (act of 1876)	730,722	15.6
Communal sick-funds	586,584	12.5
Funds under acts of the local government	143,785	3.1
Guild funds	24,879	0.5
Building funds	12,115	0.3
Total	4 294,173	91.7

The distribution among the individual states is, however, very unequal. In Prussia and Saxony the local trade funds and the factory funds are at the head. To these approximate Wurtemberg, Weimar, and Mecklenburg, in which the local trade funds lead, but the factory funds are only slightly represented. In Bavaria the communal funds include two-thirds of the total number insured. In Oldenburg the communal funds also lead, but are closely followed by the local trade and factory funds. In Hesse and Brunswick the registered funds are in the majority, and the same is the case in Hamburg. The figures for Hamburg are, indeed, so anomalous that I give them in detail, premising that the immense preponderance of the registered funds is due to the fact that nearly all the large "centralized funds" in Germany have their headquarters in Hamburg:

Proportion per 1,000 *inhabitants insured under the sick-insurance law in Hamburg.*

Registered funds	385.5
Funds under local government acts	47.4
Local trade funds	28.2
Factory funds	22.0
Communal funds	10.3
Guild funds	2.6
Total	496.0

In Baden and Alsace-Lorraine the factory funds are the chief instrument of insurance. The total number of individual funds in the Empire was as follows:

Communal funds	7,024
Factory funds	5,473
Local trade funds	3,693
Registered funds	1,805

SAM'L ROLFE MILLAR,
Consul.

COAL AND IRON STATISTICS OF UPPER SILESIA.

REPORT OF CONSUL DITHMAR.

COAL.

The 80 coal mines in the district employed in 1885 a total of 40,214 laborers—36,466 men and boys and 3,748 women and girls; aggregate wages, $5,324,112.36; average per laborer, $132.39. The output of coal amounted to 12,733,531 tons, worth $11,245,555.74; average value per ton of coal, 88 cents; percentage of wages to total value of coal mined, 47.34; number of tons produced per head of laborers, 316.6.

STATISTICS FOR TWELVE MONTHS OF CONSOLIDATED HOHENLOHE MINE AT BELKAW.

(Owner, Pr nce Hugo Hohenlohe.)

Number of steam-engines, 11, with 1,192 horse-power. Of the engines, 3, with 310 horse-power, are for mine-working; 5, with 855 horse-power, for pumping, and 3, with 27 horse-power, for other purposes. Number of pit horses, 48. Number of laborers—males, 860; females, 93 (all over 16 years of age). Aggregate of wages for the year, $135,136; average per head, $141.80. Material used—timber, 6,368 cubic meters; powder, 76,620 kilograms; dynamite, 2,186 kilograms; illuminating oil, 27,235 kilograms; illuminating petroleum, 8,165 kilograms. Tons of coal mined in the year, 360,165.

Coal used by employés and for boilers, 5,647 tons; sold at the mines, 20,178 tons; sold to furnaces, 125,013 tons; sent by railway, 200,274 tons; total amount sold, 345,465 tons; price per ton at mine, according to size, $1.30, $1.25, $1.09, $0.90, $0.24; value of output, $307,681.

IRON ORE.

The 51 mines worked during the year employed 3,868 laborers, of whom 2,358 were males and 1,510 females. Their aggregate wages amounted to $281,621.92, an average of $72.81 per head.

The production of ore amounted to 756,404 tons, of a value of $666,387.62, an average of 88 cents per ton; amount of ore produced per head of the employés, 181.39 tons.

STATISTICS FOR TWELVE MONTHS OF MIECHOWITZ MINE, NEAR BEUTHEN.

(Owner, Von Thiele-Winckler.)

Number of engines, 1, of one horse-power; number of laborers—males, 101; females, 7—all over 16; aggregate wages for the year, $11,777; average per head, about $109. Fuel used, 30 tons broken, 316 tons pea coal—total, 346 tons; timber used, 1,108 cubic meters; dynamite, 348 kilograms; illuminating oil, 2,625 kilograms. Product, 27,690 tons brown hematite ore; amount sold, 19,017 tons; value of year's output, $29,797.

SMELTING PR

tons, of a value of $5,008,786.92. The consumption of fuel per ton of iron produced was 1.811 tons. The materials used in producing the iron were: Ore, 1,050,219 tons; broken and scrap iron, 2,319; slags, 201,553; limestone, 370,641; dolomite, 102,220; coal and coke, 747,218 tons.

STATISTICS FOR TWELVE MONTHS OF THE JULIA FURNACE, AT BOBREK, NEAR BEUTHEN.

(Owners, Caro & Son.

Furnaces in blast, 3; steam engines, 15; total horse-power, 1,150; laborers over 16 years—males 289, females 127; under 16 y ars—males 9, females 1; total, 426. Aggregate of wages paid, $49,980, an average of about $117.33 per head.

Smelting materials: brown hematite ores, 78,815 tons; clay ores, 4,265 tons; red hematite, 245 tons; spathic ores, 246 tons; magnetite, 20 tons; total ores, 83,891 tons; old and broken iron, 920 tons; puddle and other slags, 21,077 tons; limestone, 40,240 tons; dolomite, 2,658 tons.

Fuel used for smelting—1,230 tons coal, 66,045 tons coke; for making steam and for other purposes, 1,985 tons coal, of which amount 1,545 tons was pea coal.

Product: 31,073 tons pig-iron; 205 tons lead, containing silver; 451 tons tutty and zinc incrustation; 321 tons zinc dust. Value of the product: iron, $369,771; lead, $14,566; tutty, &c., $10,734; zinc dust, $1,547; total, $396,608.

PUDDLING AND ROLLING MILL.

STATISTICS FOR TWELVE MONTHS OF THE IRON WORKS HERMINE FURNACES, A PUDDLING AND ROLLING MILL AT LABAND.

(Owned by the Upper Silesian Iron Industry, a joint-stock association at Gleinitz.)

The work are situated near the Upper Silesian Railway, which has tracks running into the establishment. The Klodnitz Canal passes one side of the works, and on this boats carrying from 70 to 90 tons convey rolled iron to Stettin, Berlin, and Magdeburg, and rolled wire to the company's wire works at Gleinitz.

The works contain 22 puddling furnaces, 13 smelting furnaces, 4 steam hammers, 14 steam-engines of 12-horse power, 1 water-wheel of 40-horse power, 46 boilers of various construction, 4 rolling machines for hoop, round, and square bar iron, 1 wire-rolling machine, 2 smithies, 1 turning shop with 10 lathes.

Of material consumed during 1886, there were 59,693 tons of coal, 25,488 tons of pig-iron, and 8,804 tons of old and broken iron bought from other works.

Number of managers, 10; book-keepers and clerks, 6; puddling and rolling mill hands, 730; masons, turners, black and lock smiths, 80; warehouse and loading laborers, 30; women employés, 11; together, 851 employés.

Tramway horses, 5; other horses, 4; weekly cost per horse, from $6 to $6.40.

Annual product of the works: 17,154 tons commercial iron of all descriptions; 8,069 tons wire; total, 25,223 tons, of the value of $600,207.40.

Aggregate of wages paid in 1886, $107,100.

HENRY DITHMAR,
Consul.

UNITED STATES CONSULATE,
Breslau, May 7, 1887.

METAL TARIFF IN RUSSIA.

REPORT OF MINISTER LOTHROP.

The new Russian tariff on iron and steel and goods into which these metals enter has just gone into operation, and it is thought it will considerably affect the foreign trade of the country. The substance of the law has been printed in the London Times, and I send the same herewith. The object of the law is (1) an increase of revenue and (2) to foster and protect the domestic industry of the Empire in all the products taxed. It is another step in the ruling policy that conceives that the Empire should supply all her wants within herself.

As the trade of Russia with the United States has sunk almost to a minimum, it may have no other result with us except to discourage hopes of any revival of that trade. Russia may still be obliged to buy cotton from us, though she seems to expect successful results from her cotton-raising in Central Asia.

But the effects may be very injurious to other countries. Germany has hitherto largely supplied the Russian market with tools and manufactured ironware. The Russians complain that these were largely of inferior material and workmanship, and that they were put on the market at such low prices that they drove out better wares to the great injury of the country. The peasants were not discriminating purchasers, and were likely to buy the cheapest goods.

The new tariff, coming at this time, is construed by the German press to have a special significance and to be actually hostile to Germany. I also inclose herewith a paragraph from an article in the Cologne Gazette, which may be taken as a fair expression of German views and feelings.

GEO. V. N. LOTHROP.

UNITED STATES LEGATION,
St. Petersburg, May 16, 1887.

ST. PETERSBURG, *May* 7.

A new law is promulgated to-day raising the import duty on pig-iron, wrought iron, steel, and articles manufactured from these metals.

The following are the rates at which the new duty is fixed: Ore, except graphite, copper ashes, and iron dust, 7 copecks (gold) per pood; cast-iron bars, broken iron, or iron filings, when imported by sea, 25 copecks, and when by land 30 copecks; iron, whether in plates, bars, and puddling pieces, or broken, 50 copecks. Sheet iron and iron plates more than 18 inches wide, iron in bars over 18 inches in width or length, or 7 inches and above in thickness, as well as bar iron ¼ inch to ½ inch wide or thick, 70 copecks; steel of any kind in bars and cast in pieces or broken, 50 copecks; sheets and plates above 18 inches wide, worked steel above 18 inches wide or long, or 7 inches and more thick, as well as steel bars ¼ inch to ½ inch thick, 70 copecks; worked cast iron, iron castings which have [illegible] of manufacture, etc.

jected to any further process of manufacture, such as anchors, chains, wire ropes, nails, hooks, bells, and mortars, as well as fittings and appliances for steamships, dredging machines, and railways, 120 copecks; blacksmiths' ware, 140 copecks; wrought iron and steel manufactured articles, with or without wooden, copper, or bronze parts, if weighing more than 5 pounds, 140 copecks; scythes, straw-cutters, gardening knives, sheep-shears, shovels, rakes, hatchets, and forks, 140 copecks; mechanics', artists', and manufacturers' tools, 140 copecks; machines and apparatus, except such as are used in agriculture, and models for the same, locomotive tenders, steam fire-engines, and other fire extinguishers; all other apparatus and machines intended for use in manufactories and not specially mentioned above, whether of cast iron, wrought iron, or steel, with or without parts made of other metals, and all machinery fittings, except those of copper or such in which copper is the principal material, 140 copecks; locomotives, 200 copecks per pood.

The new law directing the above modifications provides that the import duty on cast-iron bars, broken iron, or iron filings, which amounts to 25 by sea and 30 gold copecks by land, shall not be reduced before January 1, 1898. It further instructs the minister of imperial domains and finance to draw up as soon as possible a scheme for the adoption of measures in the districts on the western frontier with a view to prevent the further development of the existing and the establishment of new smelting and iron works which use foreign material and employ foreign workmen.

Much more outspoken and vehement on the subject is the Cologne Gazette, which writes:

"The new Russian customs measure is an event of very serious importance—a blow directed against German industry within our own Empire, as well as in Russia, where it will almost have an annihilating effect—but at the same time also a blow in the face of previous Russian policy and its present official representative. The measure in fact shows that it is the influence of M. Katkoff which is supreme over the power and will of the Czar, and not the moderate party headed by M. de Giers. Brutal measures like those which have now been carried by the present finance minister of Russia cannot but react on her political relations to the neighboring State against which they are directed, and perhaps it will not be wrong of us to assume that they were expressly devised for this purpose. But at any rate these Russian measures have immensely strengthened the movement now on foot among us for doubling our duties on foreign grain."

ADULTERATION OF WINE IN SPAIN.

REPORT OF CONSULAR AGENT HALL.

This question, which for some time has occupied the attention of the press throughout Europe, is worthy of treatment not only by those interested in the wine trade but by all in support of public welfare and hygiene.

This district of Jerez de la Frontera, whose existence is greatly, if not entirely, dependent on the wine trade, is to-day almost a nullity in comparison with its standing of but a few years ago, a repute now menaced with near and certain death because of the adulteration of wines.

The celebrated and world-famed Jerez, or sherries, which for years have on their own merits stood first of all beverages, are now sought and often are regarded with depreci- [illegible] adulteration as now

markets as Jerez brands. But the discredit oppressing the genuine Jerez is sustained by its very home exporters; for temptation, incited by commercial impulse and opposition, is offered with great inducement to shippers, even of standing, to fulfill demands for inferior wines of other localities under Jerez brands, to thereby bring in orders for the high-priced article, yet there is not one who does not recognize the evil incurred by this dealing, and many long-established and reputed vintners, conscientiously jealous for the merited fame of their wines, close their cellars for lengthened periods rather than allow a butt of inferior quality to leave them under their brands.

The pernicious effects of Berlin spirits are generally recognized and palpably observed in the traffic where it is employed in mixing low wines; for the working men in wine-cellars are permitted at fixed hours to consume the pure wines they are constantly handling, and enjoy the best of health, manifesting not even symptoms of the unhappy consequences observed in laborers, who to satisfy their thirst must resort to cheap wines that may be considered veritable poison so disastrous are the effects of the Berlin spirits with which they are unscrupulously fortified. The laborers in this district, where the wine trade chiefly supplies occupation, average excellent physical condition; what, then, must accrue if the evil of adulteration creeping into this locality be permitted to take deep root?

All wines must be more or less fortified with spirits, especially for exportation. And, bearing in mind that pure spirits of wine (produced from the grape) prices 97 pesetas per hectoliter, and that Berlin spirits (produced principally from potatoes and laden with the deadly amilic alcohol) prices 30 pesetas per hectoliter, economical motives naturally conduce to employment of the latter for fortifying low wines, which otherwise would not only be profitless but ruinous. Such is the inferiority of these wines that they should either be sent to the still or let turn to vinegar, and should be utterly condemned as a beverage.

This step once realized, Berlin spirit could no longer work its evil influence in our wine trade.

Could wine-consumers be prevailed upon to seek from standing houses the genuine Jerez wines, according them their fair prices, and not allowing false mixtures to be imposed on them, health and pleasure would thus be derived, and the famous sherry wine, now so run down by unfair trade, would soon regain its old and honored rank above all other wines.

Strenuous efforts are being made by the chamber of commerce of this city, aided by prominent and reputed wine-exporters, to put an end to adulteration of wines and combat the nefarious proceedings of unscrupulous dealers in the article; and although much depends on the customers to improve the present decline in the trade, the great necessity is for the Spanish Government, recalling the adage, *Salus populi suprema lex*, to take decisive measures, acting by the judgment of medical universities and sanitary commissions, all eminent European hygienic authorities, and, by no means last of all, the voice of the people, to condemn the use of B[illegible]
portable [illegible]

remedies promptly enforced the present condition of the wine trade must continue from bad to worse, and every day witness increase of the discreditable practice of adulteration of wines.

J. A. HALL,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Jerez de la Frontera, May —, 1887.

[Translation of address directed by the Chamber of Commerce and Industry of Jerez de la Frontera to the minister of state, Madrid, published in the Jerez de la Frontera Guadalete, Wednesday, April 27, 1887.]

To his excellency the Minister of State:

YOUR EXCELLENCY: The official Chamber of Commerce and Industry of Jerez de la Frontera, desirous of perfect accuracy in its reply to your excellency's circulars of dates January 10, February 8, and March 1 of the current year, has considered it befitting to first consult the opinion of the most competent local wine negotiators. The delay originating in this circumstance renders it now possible to embrace in one single communication all the topics to be treated; a delay, moreover, justified, inasmuch as the points under consideration invariably have reference to the same most important object of preserving the purity and credit of Spanish wines.

With regard to the far-famed wines of the district of Jerez, to-day they are less appreciated than before, and the opinion is unanimous that this great decline in their value and commerce is to be attributed to the enormous importation of German spirits; this fact has been demonstrated on various occasions in ample and sensible ways; and also has recently been declared in the congress of deputies by those illustrious sons of this place, the Duke of Almodóvar del Rio and the Marquis of Mochales, interpreting faithfully and eloquently the convictions and sentiments of the public.

But for the obnoxious aid of these industrial spirits that offer every facility to adulteration, the wines of poorer quality in the province and its vincinity could never have flooded this district, substituting in great part such miserable liquids for the genuine Jerez, for many years and with such discrimination made and aged in its celebrated cellars. Many musts even within our city limits, that neither could nor should have any other destiny than the distillery, or to be let turn to vinegar, are to-day employed with the adulterated mixture obtained from Berlin, to be offered to consumers under names unlawfully appropriated; and by their cheap price make competition still more iniquous and injurious to commerce of good faith, the honored commerce to which our old and reputed exporters render and have ever rendered respect.

Your excellency rightly observes that the interveners in the business take the greater part in this discreditable work; but all effort of our vintners cannot avail to abolish the decided influence exercised in various markets, as long as the ways by which it is planned and effected are not obstructed and destroyed by effectual measures. And this is what the producing district hopes of the high powers of State and of your excellency's zeal and initiatory support.

It is an incontrovertible and well-proven truth to all who have occupied themselves in the study of wine, that alcohol produced in it by fermentation is found to be intimately and truly assimilated with all its other natural elements; and that this condition differs greatly from that which the same alcohol affects, when, having been obtained from distillation, it is added to these liquids to improve and preserve them. The mixture is then verified by a long and incomplete process; but the adaptation or assimilation of the spirits is thus more perfect with the indispensable condition of cleanliness, and preserves certain essential etherous oils natural to the [illegible] time contribute to give it savor, bouquet, and characteristic [illegible] brewery means unfit for improving and [illegible] and all so-called

This chamber of commerce does not consider itself competent to define accurately the more or less injurious qualities of industrial spirits, in that economical and mercantile objections are chiefly those that it can allege against this spurious and unnatural alcoholization of our wines; but so much has this question been debated by scientific schools and societies as well-nigh to arrive approximately in this respect to an important distinction between the spirits that contain noticeable quantity of alcohols termed superior, whose intoxicating power appears complementally proved, and these spirits containing other alcohols that by virtue of scrupulous analysis are found to be almost pure ethyl, and under the point of hygienic view offer no properties seriously differing from those of the wine-alcohol that is brought to the same excessive strength. The process, then, to which these two classes of spirits must be subjected to admit of their importation and application it appears should be varying; because if the latter class, added to wines or destined to liquors, can effect adulteration in a certain inoffensive way, the employment of the spirits abounding in amylic alcohol should be considered a decided crime, and for these, with the object of preventing so much harm, their complete disuse is necessary, as proposed by the chamber of commerce of London. But as in fact no one class nor another can ever, as has before been implied, be found to contain vestiges of those ethers associated solely and exclusively with light wine alcohol, and that are indispensable, although in small quantities, to the unison of the results, it is clear that industrial liquids of both classes, distilled or not distilled, should be equally proscribed to wine concoction.

It is certain, then, your excellency, that it is necessary to lay down the law in such a manner that, by encouraging the production of spirits of wine, it shall be impossible to substitute for them even the purest of other origin. And to advance so sensible and imperious a necessity there can be no more efficacious encouragement than the increase of importation and octroi duties on all industrial alcohols. If to this are opposed the international treaties—and these cannot be set aside—our evil has no remedy; or it will not come until so late that that which should be the principal Spanish industry may have first succumbed. Other methods would not be sufficient to preserve the manufacture of the national alcohol, while it is crushed in competition based on confusion and deception. By the term national alcohol is understood only that produced from the grape; for in the soil and climate in which the vine renders the most sugary fruit, this other industry should never be permitted to take root, that, deriving ts primitive elements from agricultural products, of great elementary worth and commodious transportation and preservation, is only feasible in the cold and foggy regions of the north.

May the taxes embarrassing our agriculture be moderated and equally distributed; may the means of communication be increased; may the large part of our country's area that remains uncultivated, unpopulated, and almost unproductive be opened up to industry; may transportation be facilitated and rendered less expensive by our privileged railway companies; may an agricultural credit be established, and the now oppressed laborer be enabled to live free from the loans of usurers and the disdain of capitalists; may technical knowledge of productive application be diffused; and then we can enter the economical lists with the conditions to which nobility and honor are bound.

With regard to adulteration in general, leaving now questions that it is not possible, nor perhaps pertinent to treat profoundly at this moment, the chamber is of opinion that all wine should be considered adulterated and not genuine that contains substances foreign to the must of the grape, as also all that may have received in excessive quantity materials analogous to those that constitute the natural product. To determine, nevertheless, with perfect clearness, even in this fundamental criterion, what is lawful in the perfecting of wines, and what is judged fraudulent and penal, is required the slow and careful study that already doubtless has been given the subject by competent and worthy parties named with that object by his excellency the minister of fomentation. But to defend the various especial wines, the genuine products of every district, against fraud and imitation, two things are necessary: The establishment of local brands, and analytical departments; and, above all, to permit this chamber to address a few words to your excellency.

Nothing is of such interest to the producing district as the preserving the typical character of wines that have deservedly won it universal fame and renown; and to nothing is it so in duty bound as to be vigilant [illegible]

renowned though they are, there is not to be found one who will purchase them for even the tenth part of what they paid in the days of their prosperity.

To continue: Brands determining origin, if opportunely established and prudently applied, would have in great part avoided so many misfortunes an ! such prospective ruin. Experience has proved that the guarantee of especial brands, for all they may be respectable and respected—and there exist many and of ancient date with these requirements—does not suffice to prevent the artifice of adulteration; and thus to all classes of vintners is of importance the attainment of a plan often proposed but without that perseverance conducive to its execution. This chamber of commerce has to consider so original a case with the attention and tedious examination due to it; moreover, according to the opinion of experienced persons, our legislature proves itself inefficient as regards what pertains to local brands that, as a question of general interest and even of international rights, presents a new aspect. What is desired is a law that shall authorize these brands, regulating them in such a manner that, insuring the purity and good name of legitimate merchandise, rise may not be given to unjust rights and exclusions, and that shall protect them under diplomatic stipulations in our own kingdom and in those abroad. The object is worthy your excellency's noble and patriotic encouragement.

With the same end is recounted the establishing of enological stations and chemical labora ories, in which industry may encounter elements of study and progress and means of analysis and comprobation. The proposition on the subject made by the Chamber of Commerce of Huelva, that these departments be established in institutes of secondary instruction, an idea benevolently protected by your excellency and recommended for execution to the ministry of fomentation, is without doubt worthy of all praise, but perhaps in many cas s it does not satisfy the requirements that the depa' tments are called upon to fill, above all if local brands be instituted. The analytical tests frequently necessary exact laboratory experience and assiduous and unremitting labor more than theoretical knowledge. The relation of these departments to the centers of exportation is an item that should be taken into account, as also their relation with the societies and syndical corporations of vintners that may be formed. It would be convenient that the enological stations, and even the analytical departments annexed to them, should be independent, thus preventing access to the speculative educat.on that is propagating in our country to the perceptible detriment of agricultural and industrial development. If the state would submit to some sacrifice in the matter, it would only comply with what the richness most contributing to the public revenues is entitled to exa t.

This chamber draws to a close its already lengthy dissertation by summing the chief arguments it has had the honor to lay before your excellency into a reply to the various points of your excellency's before-mentioned circulars; arguments that can substantially be reduced to the four following conclusions:

1. That to benefit and strengthen our musts in cases and in measures that for these operations may be requisite or convenient, the most prominent local theorists, as well as the oldest and most experienced negotiators, are unanimous in recognizing that no other spirits should be used than those obtained from the fermented juice of the grape; and even these only of strength permitting them to retain the ethers that, favoring assimilation to the wines, bring up to par their flavor and bouquet.

2. That the industrial spirits, whatever their origin and degrees of strength, can never be substituted for those of the grape, lacking absolutely, as they do, the chief ethers above specified, and therefore their mixture with natural wines should be prevented as much as possible as constituent of adulteration, and that, in respect to those spirits containing so-called superior alcohols in noticeable quantities, as also the amilico—thus including those commercially styled three-five, three-six, and so on, that proceed from grains, potatoes, and beets, and do not reach 40° Cartier nor 95°.9 centesimals—should be assailed and penalty severely imposed upon their use for strengthening of wines and for perfecting of liquors, regarding it as a grave attempt against moral and public hygiene.

3. That to develop in our land the making of light-wine alcohol it appears both [illegible] adequate to tax with all possible duties and imposts other na- importation, application, or consump- and to ex-

guarantee the procedure, purity, and worth of legitimate wines, dispelling the darkness and confusion that to-day reign in the market; and to aid effectively these plans, it is necessary that enological stations and chemical laboratories should be established in the chief producing and exporting centers.

Such is, according to its understanding, the information that this chamber of commerce is permitted to present to your excellency's superior and illustrious consideration.

God protect your excellency many years.

Jerez de la Frontera, April 5, 1887.

Your excellency,

JOSÉ DE BERTEMATI,
President.
JUAN REBUELTOY ABRIL,
Acting Secretary.

LIQUOR LAW OF SWITZERLAND.

REPORT OF MINISTER WINCHESTER.

The new law controlling the manufacture and sale of spirits in Switzerland, submitted under the *referendum* to a popular vote, was on yesterday (Sunday) accepted by a very large majority. The law thus enacted is substantially as follows:

ARTICLE 1. The right to manufacture and import liquors, the manufacture of which is hereby placed under federal control, shall belong exclusively to the Confederation. Liquors delivered by the Confederation to be used for drinking shall be sufficiently rectified and inspected. As for the supply covered through the domestic production, the Confederation transfers to local authorities and trade the necessary delivery, as per Article 2.

ART. 2. Nearly one-quarter of the consumption of liquors shall be provided by contracts of delivery, which the Confederation will conclude with domestic producers. The deliveries are to be published for acceptance by the federal council, in lots of not less than 150 hectoliters and not exceeding 1,000 hectoliters of pure alcohol. Each lot will be assigned to the party presenting the required guarantee and making the best offer for the lot. In determining the offers submitted, the distillation of domestic raw material and distillation by agricultural associations are to be preferred. No bidder will receive more than one lot.

ART. 3. The importation of superior liquors may be permitted to private persons under conditions fixed by the federal council, and for a certain monopoly fee of 80 francs per liter one hundred gross and the import duty, regardless of the degree of a whole.

ART. 4. The Confederation will deliver the liquor in quantities not less than 150 liters. The price will be regulated by the federal council from time to time, and published in "*Feuille Fédérale.*" The price shall not be less than 120 francs and not more than 150 francs per hectoliter of pure alcohol, without the cask.

ART. 5. In the exportation of products, in the manufacture of which dutiable alcohol has been used, the quantity of such alcohol is to be ascertained and the duty paid on it, returned at the close of the fiscal year. This reimbursement will be made by the federal council on the basis of the average difference between the selling price and the purchase price of the imported spirituous liquors. No such return of duty on alcohol will be made in case of exportations of less than 20 liters.

ART. 6. Alcohol intended for mechanical or domestic purposes, taken from the cheapest quality and as raw spirits, will be furnished from the warehouses of the Confederation, in quantity not less than 150 liters, at cost price, and, when imported, with the addition of the import duty. The federal council will regulate as to the test of alcohol falling in this class.

ART. 7. Hawkers' trade in [illegible]
in taverns [illegible]

ART. 8. The sale of spirituous liquors of all kinds in quantity not less than 40 liters will be regarded wholesale. The sale of smaller quantities, or retail sale, is subdivided into—

(1) Retail sale in taverns to be consumed there.

(2) Retail sale to be carried away. License for retail in taverns is to be granted by the cantonal authorities under a tax proportioned to the importance of the trade and the amount sold. This tax will be fixed by the cantons until it is placed under federal regulation. Distillers who, in one year, do not manufacture more than 40 liters liquors not subject to the federal duty, are at liberty to sell their product in quantity not less than 5 liters. The casks in taverns must be stamped with the official stamps.

ART. 9. The cantons will be charged with the supervision of the trade in spirituous liquors delivered by the Confederation, as well as to the manufacture and sale of liquors not subject to the federal duty.

ART. 10. The execution of the law in its other parts devolves on the federal council, which will provide the necessary machinery and regulations. The federal council can claim the co-operation and assistance of the cantons, and, in event of so doing, all expenditures incurred by the cantons must be refunded to them by the Confederation. The Confederation will advance to the monopoly administration the sum necessary for the execution of the law, the sum so advanced to bear interest and to be redeemed in a reasonable time.

ART. 11. The Confederation collects the duty on all imported spirituous liquors and renders an account of the expense of the monopoly administration, as well as the increase of the customs expense occasioned by the monopoly.

ART. 12. The net income of the monopoly administration will be divided, under the limitations of the constitution, among the cantons according to population as shown under last federal census. This distribution will take place at the end of each calendar year.

ART. 13. The cantons must report annually to the federal council as to the disposition of the 10 per cent. of the amount received by them, which, according to Article 32 *bis* of the federal constitution, must be applied to suppress intemperance. These reports shall be submitted in printed form to the federal council.

ART. 14. Whoever violates the provisions of this law, either in the manufacture of spirituous liquors without authority, or fails to deliver to the Confederation the entire quantity he may at any time manufacture under the authority granted him, or procures an unjust return of customs duties, as provided in Article 5, or uses the raw spirits under Article 6 for other than the specified purposes, or procures spirituous liquors in an illegal manner, shall be subject to a fine from five to thirty times the value of the amount so improperly obtained. If this cannot be ascertained the fine will be from 200 to 10,000 francs. In case of a repetition of the offense or under aggravating circumstances, the fine may be doubled and an imprisonment of six months added. The attempt to violate or evade the provisions of the law shall be subject to the same penalties.

ART. 15. In addition to the cases referred to in Article 14, each violation of the law or the regulations relating to its enforcement shall be subject to a fine from 20 to 500 francs; this fine will be increased to 50 or 1,000 francs where resistance is offered to the execution of the law, under limitations of Article 47 of the federal penal code.

ART. 16. One-third of the fines realized under the law shall go to the informer, one-third to the canton, and one-third to the commune in which the offense was committed. If there be no informer, then two-thirds goes to the canton where the offense has been committed by the officers or the employés of the customs administration; the fines will be apportioned under Article 57 of the canton law of August 27, 1851.

ART. 17. Proceedings in all cases for violation of the law or the provisions for its carrying out shall be had in conformity with the federal law of 30th June, 1849, for violation of fiscal and revenue laws.

ART. 18. The proprietors of existing distilleries shall be indemnified by the Confederation for the depreciation in the value of their property caused by the enactment [illegible] this depreciation the profits in the business shall not be [illegible] limited to distilleries established pre- [illegible] which renounce

party to the federal tribunal, within thirty days after the rendering of the same. If not done within this time the opinion of the commission will be final. The procedure, both of the commission and the federal tribunal, shall be by a special regulation of the federal tribunal, based on the law of May, 1850, concerning the condemnation of private property.

ART. 19. The Confederation has the right to acquire the stock of monopoly spirituous liquors in the country, after the law goes into effect, amounting to over one-half hectoliter, with indemnity, where the owner is unwilling to pay the required taxes. If the Confederation sees proper to enforce its right of acquisition, the proprietors must give notice of their stock; any concealment of same will involve complication and penalty under Article 14. The price to be paid for liquors so appropriated by the Confederation will be fixed by experts appointed by the federal council.

ART. 20. The federal council is charged with the full execution of this law.

ART. 21. The federal council is charged, in conforming with the provisions of the federal law of June 17, 1874, to promulgate this law and fix the date when it shall go into effect.

This law, after a long discussion in the Federal Assembly and referred to several commissions, was agreed upon as a compromise between the different shades favoring the monopoly of the manufacture and sale of spirituous liquors and its opponents. The absolute control over the manufacture and rectification of alcoholic spirits is vested in the Confederation, with indemnity to distillers. This proposition to give the Confederation this monopoly of making and selling all alcoholic spirits naturally has provoked a very general and warm discussion, especially on the part of the public press. In this canton, where there exists a very large distillery interest, the opposition was vigorous. Many church papers opposed it on moral grounds; that the Government should not make itself a party in a traffic so injurious to the people, and that if it be found necessary to restrict the sale of spirituous liquors, it should be done by the imposition of higher taxes, and that the portion assigned to the cantons to be used in measures to repress the abuse of alcohol is a recognition in a most distinct form of the baleful traffic. But the result of yesterday's popular vote shows that the law was most favorably considered by the people, receiving, as it did, almost two-thirds of the vote cast, and it is confidently predicted by its friends that no possible harm and much good will result. The distillers are required to sell their product to the Government, and to no one else. The Government will then resell it to the consumer—that is, the Government is to have a monopoly of the entire retail trade in intoxicants. This plan is not altogether new, having been tried in several countries, and notably in Russia at one time, where the imperial eagle was the sign over the door of the vodka shop.

It is expected that the retail price will be raised, and that 10,000,000 francs will be derived from it, to be disposed of as provided under the law. It is also contended that the quality will be improved, as strict regulations will be enforced in the materials used and methods of distillation. A recent writer on the question, a merchant in the wine trade in Zurich, says that even in this unsophisticated land of innocent-looking vineyards the grape takes the smallest part in the manufacture of wines. He makes the striking statement that the annual importation of dried raisins to Switzerland [illegible] while only 800 quint[illegible]

that 12,000,000 francs' worth of this manufactured wine is sold annually in Switzerland, of which 5,000,000 francs' worth comes from France, the balance being prepared here. This writer asserts that it is impossible by means of any analysis to distinguish the manufactured from the natural wines. For some years the prevalence of intemperance, resulting, it is believed, from the free use, cheap production, and adulteration of alcoholic spirits has been observed by the thoughtful citizens of this country. An inquiry instituted by the Government disclosed the fact that there was consumed annually 150,000 hectoliters, or about 10 liters, of alcoholic liquors for each inhabitant. It will be interesting to temperance reformers to watch the effect of this experiment, which, in some of its features, is entirely new. It is perhaps the first effort ever made on a large scale to reduce the consumption of concentrated alcohol, while leaving that of diffused alcohol, as in wine and cider, untouched. The enactment of this law necessitated the modification of the customs duties convention between France and Switzerland, providing, in lieu of the abolishing of all cantonal and commissional duties heretofore imposed, a corresponding increase of the federal frontier customs duties, the details of which were given in a previous dispatch.

BOYD WINCHESTER.

LEGATION OF THE UNITED STATES,
Berne, May 16, 1887.

AGRICULTURE IN SCOTLAND.

The following table was compiled by Consul Underwood, of Glasgow, from Vol. XIX of the "Transactions of the Highland and Agricultural Society of Scotland." The returns were prepared in reply to the following set of questions:

(1) What was the quantity, per imperial acre, and quality of grain and straw, as compared with last year, of the following crops? The quantity of each crop to be stated in bushels. What quantity of seed is generally sown per acre?—(1) Wheat, (2) barley, (3) oats.

(2) Did the harvest begin at the usual time, or did it begin before or after the usual time; and if so, how long?

(3) What was the quantity, per imperial acre, and quality of the hay crop, as compared with last year, both as regards rye-grass and clover, respectively? The quantity to be stated in tons and hundredweights.

(4) Was the meadow-hay crop more or less productive than last year?

(5) What was the yield of the potato crop, per imperial acre, as compared with last year? The quantity to be stated in tons and hundredweights. Was there any disease, and if so, to what extent, and when did it commence? Were any new varieties planted, and with what result?

(6) What was the weight of the turnip crop, per imperial acre, and the quality, as compared with last year? The weight of the turnip crop to be stated in tons and hundredweights. Was more than one sowing required, and why?

(7) Were the crops injured by insects? State the kind of insects. Was the damage greater or less than usual?

(8) Were the crops injured by weeds? State the kinds of weeds. Was the damage greater or less than usual?

(9) Were the pastures during the season of average growth and quality with last year?

(10) How did stock thrive on them?

(11) Have cattle and sheep been free from disease?

(12) What was the quality of the clip of wool, and was it over or under the average?

Shires.	Wheat.			
	Quantity wheat.	Quality.	Quantity straw.	Seed sown.
	Bushels.		*Tons.*	*Bushels.*
Edinburghshire	44	Good	2	3
Linlithgowshire	35	Inferior		3
Haddingtonshire:				
Lower district	48	Good	Average	
Upper district	None			3
Berwickshire	29	Good	1¼	
Roxburghshire	26	Inferior	Inferior	
Selkirkshire	None			
Peeblesshire	None			
Dumfriesshire (Upper Nithsdale)	None			2¼
Stewartry of Kirkcudbright	29	Inferior		3
Wigtownshire	30	Inferior	1¼	3
Ayrshire	34	Excellent		4
Bute (only 10 acres wheat)	48	Good	Good	
Arran	No wheat.			
Lanarkshire	No wheat grown			3
Middle ward	36	Good	Damaged by rain.	3
Lower ward	33	Good		
Renfrewshire:			Good	
Middle ward	37	Good		
Lower ward	No wheat.			
Argyleshire:				
Oban district	No wheat.			
Lockgilphead district	No wheat.			
Cowal district	No wheat.			
Inverary district	No wheat.			
Dumbartonshire	24½		Inferior	2¼
Stirlingshire:				
Western district	No wheat.			3
Eastern district	35	Injured	1½	3
Fifeshire:				
Eastern district	38	Injured	1½	3
Middle district	30	Good		
Western district	30	Good, but damaged by rain.		3
Perthshire:				
Southwest district	26	Generally poor	Poor	3½
Cupar-Angus district	40	Good		3
Western district	No wheat.			
Strathearn district	32	Fair		4
Highland district	No wheat.		Damaged by wet.	
Dunkeld and Stormonth districts	40	Good		2½
	32	Average		
Forfarshire	No wheat.			
Aberdeenshire:				
Buchan district	No wheat.			
Formartine district	No wheat.			
Garrioch district	No wheat.			
Shathbogie district	No wheat.			3½
Banffshire (lower district)	34	Good		
Morayshire (lower district)	No wheat.			3
Nairnshire	30	Fair	Abundant	
Invernesshire:				
Inverness district	No wheat.			
Beauly district	No wheat.			
Skye district	No wheat.			
Lochaber district	No wheat.			4
Rosshire:	32	Fine	Average	
Western district	(Very little grown.)			
Dingwall and Munlochy districts	36			
Mid Ross, eastern Ross, and Crom-				

Barley.				Oats.			
Quantity barley.	Quality.	Quantity straw.	Seed sown.	Quantity oats.	Quality.	Quantity straw.	Seed sown.
Bushels.		*Tons.*	*Bushels.*	*Bushels.*			*Bushels.*
42	Good	.....	2½	64	Good	.....	4
35	Inferior.....	Inferior.....	2½ to 3	30	Very poor ..	Very poor ..	5
48	Average....	Average	2½	50	Good	Average....	4
32	Good	Average	3½	34½	Good	Short.....	5
33	Inferior.....	Below av ...	2½	40	Good	2,400 pounds	4½
34	Inferior.....	Inferior.....	.....	30	Damaged...	Inferior.....	.....
25	Good (dam. by rain).	Average	3½	26	Good	Damaged...	4½
33	Good (dam. by rain).	Damaged...	3½	36	Good	Good	4
Very little grown		.....	.....	30	.....	.....	.....
31	Inferior	.....	.....	33¼	Good; part dam. by rain	Inferior	5½
32	Poor.....	.....	3½	32	Poor.....	.....	.....
39	Excellent...	1½	.....	50½	Good	.....	4½
30	Poor.....	Poor	4	37	Good	.....	.....
No barley	.....	.....	.....	26	Average....	Good	5½
Scarcely any grown		.....	.....	32	Good; dam. by rain.	Light	6
32	.....	.....	.....	38	.....	Inferior.....	5
30	Very little grown	.....	.....	33	Inj. by rain.	.....	.....
32	Very little grown	.....	.....	40	Good	.....	.....
No barley....	.....	.....	.....	30	Inferior	Heavy.....	.....
Practically no barley		.....	.....	Average ..	Superior....	Inferior	4½
Very little barley		.....	.....	Average ..	Average	Superior....	5½
No barley....	.....	.....	.....	47½	.....	.....	.....
No barley....	.....	.....	.....	25½	.....	2½	6
Very little barley sown		.....	.....	38	Mostly good.	Inferior	6
32	Inferior.....	.....	.....			Good	3½
36	Good	Injured	3½	34	Injured.....	Inferior.....	4
34	Injured	3		39	Injured.....	Injured	4
32	Excellent...	1	3	40	Injured.....	1	4
36	Dam. by rain	1	3	35	Fair	⅞	4½
27	Inferior.....	.....	3	40	Partly dam. by rain.	.....	4
48	Fairly good.	Bad.....	4	Good crop.	Partly dam. by rain.	Dam. by rain	5
No barley....	.....	Good	2½	50	Good	Inferior	4
36	Dam. by wet	Barley.....	.....	Average ..	.....	.....	.....
27½	Good	.....	3¾	39	Dam. by wet	.....	.....
48	.....	Good	4	34	.....	.....	4½
36	Variable....	Inferior.....	3½	44	.....	Dam. by wet	5
Average.....	.....	.....	3½	44	Variable....	Variable....	4
36	Variable....	.....	3½	36	Inferior	Damaged...	4½
38	Good	Good	4	36	Fine	Abundant ..	6
40	Very little barley		4½	40	Good	Damaged...	6
40	.....	.....	3½	42	Dam. by wet	Variable....	.....
38	Excellent...	.....	.....	40	.....	.....	6
30	Good	.....	3½	48	Excellent...	.....	.....
35	.....	.....	4	36	.....	.....	3½
32	Good	.....	3¼	32	.....	.....	5
No barley....	.....	.....	.....	40	Good	.....	4½
No barley....	.....	.....	.....	18	Fair	.....	.....
No barley....	.....	.....	.....	30	Inferior	Fair	6
36	Superior....	Fair	3¾	28	Fair	.....	6
40	.....	.....	.....	36	Superior....	Good	6½
36	Inferior.....	Fair	.....	42	.....	Fair	4½
32	Good	.....	4	38	Good	.....	.....
Average crop		.....	.....	34	Good	Good	.....
Good average		.....	.....			Large	

Shires.	Time of harvest.	Hay.		
		Quantity.	Quality.	Meadow hay.
Edinburghshire	Sept. 6	2 tons		None
	Late	1¼ tons	Fair	None
Linlithgowshire	Aug. 17	2 to 2½ tons	Excellent	None
Haddingtonshire:				
Lower district	Late	Average	Fair	Average
Upper district	Late	3,100 lbs	Good	None
Berwickshire	Late	1½ tons	Good	Below av
Roxburghshire	2 weeks late	1¾ tons	Good	Inferior
Selkirkshire	Rather late	1¼ tons	Good	Good (dam. by rain).
Peeblesshire	2 weeks late	25 cwts	Average	Below av
	10 days late	22 cwts	Good	23 cwts. (below av.).
Dumfriesshire (Upper Nithsdale)	2 weeks late	1 ton	Fair	Average
Stewartry of Kirkcudbright	10 days late	1½ tons	Backward	Average
Wigtownshire	10 days late	1¼ tons	Average	Little grown
Ayrshire	2 weeks late	34 cwts	Good	None
Bute	12 days late	34 cwts	Good	Good
Arran	2 weeks late	37 cwts	Good	Excellent
Lanarkshire	3 weeks late	38 cwts	Good	Average
Middle ward	2 weeks late	2 tons	Good	Good
Lower ward	2 weeks late	1 ton	Fair	Good
Renfrewshire:				
Middle ward	2 weeks late	Light crop	Good	Inferior
Lower ward	2 weeks late	Good	Good	Average
Argyleshire:				
Oban district	Usual	Under av	Good	Inferior
Lochgilphead district	Late	2 tons	Inferior	Inferior
Cowal district	2 weeks late	1½ tons	Good	
Inverary district				
Dumbartonshire	10 days late	1¼ tons	Fair	Inferior
Sterlingshire:	10 days late	1¼ tons	Excellent	
Western district				
Eastern district	10 days late	1½ tons	Good	Little grown
Fifeshire:	2 weeks late	1½ tons	Excellent	Good
Eastern district	2 weeks late	1½ tons	Excellent	
Middle district				
Western district	2 weeks late	18 cwts	Fair	Inferior
Perthshire:	3 days late	2 tons	Good	None
Southwest district	2 weeks late			Inferior
Cupar-Angus district	10 days late	1½ tons	Good	Average
Western district	10 days late	18 cwts	Fair	Good
Strathearn district	Rather late	1½ tons	Good	Average
Highland district	Usual	1½ tons	Good	Average
Dunkeld and Stormonth districts				
Forfarshire	1 week late	1½ tons	Fair	Average
Aberdeenshire:	5 days late	1½ tons	Fair	None
Buchan district	3 weeks late	1½ tons	Average	None
Formartine district	3 weeks late	1 ton	Good	None
Garrioch district	10 days late	18 cwts		None
Shathbogie district	Rather late	2½ tons	Good	None
Banffshire (lower district)	2 weeks late	Average		None
Morayshire (lower district)			Fair	Little
Nairnshire	10 days late	2 tons	Inferior	None
Invernesshire:	2 weeks late	1 1/16 tons	Inferior	Inferior
Inverness district	2 weeks late	Variable		
Beauly district			Good	Good
Skye district	10 days late	1¼ tons		
Lochaber district			Good	Good
Rosshire:	10 days late	1 ton	Good	None
Western district	10 days late	1¼ tons	Light	None
Dingwall and Munlochy districts	10 days late	1¼ tons		
Mid-Ross, Eastern Ross, and Cromarty districts.	Average	Below av	Inferior	Average
Sutherlandshire	3 weeks late	1¼ tons	Good	None
Caithnesshire	Late	Good	Good	Average
	2 weeks late	Large		

Clydesdale Mearnshire

Potatoes.			Turnips.		
Quantity.	Disease.	New kinds.	Quantity.	How sprouted.	More than one sowing.
Tons.			*Tons.*		
5½ to 6½	None	Magnum Bonum, Champion, Imperata.	30 to 35	Well	Some resowing.
Average	Very little		15 to 30	Well	Scarcely any.
7	None		24	Well	None.
5½	None	None	21	Well	None.
5	None		17	Well	None.
4	Very little	None	16½	Well	
4½	None	None	19	Well	None.
4	None		20	Well	None.
3½	Not much		19		
6	Some	Champions (diseased)	18¼	Well	None.
6	Some	None	14	Well	None.
7	Some	Regents spoiled by disease	22½	Well	Very little.
6	Some	None	21¼	Well	Little.
5½	Much	None	24	Well	None.
5	None	Few	35	Well	None.
10	None		25	Slowly	None.
6½	Some	Regents and Champions hurt by frost.	18	Well	None.
7½	Much	Magnum Bonums best	17½	Well	None.
5½	Some	Champions and Reading Heroes diseased.	16	Fair	Partly.
Average	Much	Champions affected	Average	Well	None.
Inferior	Little		Good av	Well	None.
Average	Little		24	Well	None.
Large crop	Very little	Mostly Champions	18	Slowly	Very little.
6½	S me	Champions diseased	18½	Well	None.
8	Little		Large crop.	Well	None.
7	Much	Regents diseased	16	Well	None.
4¾	Little	Beauty of Hebron sells well	15	Well	None.
5	None	None	16	Well	None.
4½	None		14	Well	None.
Average	None		20		Very little.
5¼	Little		20	Well	Little.
6	Little		22	Well	Little.
4½	Little		25	Well	None.
6½	None	None	17	Well	None.
7	None	Magnum Bonum preferred	19	Well	None.
6½	Little		22	Fairly	A little.
6½			23		
6	None	Champions	18	Well	None.
7	None	Champions	22	Gen. well	Gen. none.
3			1		
5½			Half crop	Well	None.
5	None		18	Well	None.
6½	None		25	Well	None.
6	Very little		18	Fairly	None.
Good av	None		From 15 tons downward.	Well	None.
5½	None		21	Well	None.
7	None		9	Fairly	None.
5	None		28	Slowly	None.
7	Little		21	Well	None.
Average			Average	Well	None.
Fair crop			17	Slowly	None.
Good crop	None		Fair crop	Well	None.
Under av	None		Average	Well	None.

(upper district), and Shetland (island of Unst).

Shires.	Damage by insects.	Damage by weeds.	Condition of pastures.
Edinburghshire	Turnip-fly	None	Better
Lidlithgowshire	None	None	Average
Haddingtonshire:			
Lower district	None		Poor at first
Upper district	None	A few	Partly bare
Berwickshire	Very little	A few	Average
Roxburghshire	None	Very little	Good
Selkirkshire	Little	Little	Bare
Peeblesshire	Not much	Little	Good average
Dumfriesshire (Upper Withsdale)	None	As usual	Average
Stewartry of Kircudbright	None	None	Average
Wigtownshire	None	None	Inferior
Ayrshire	Little	None	Poor early in season; fine in autumn.
Bute (only 10 acres wheat)	None	Little	Good
Arran	None	None	Average
Lanarkshire	None	Much	Inferior; dry
Middle ward	Little		Good
Lower ward	Little	Little	Bad at first
Renfrewshire:			
Middle ward	None		Excellent
Lower ward	Damage by flies	As usual	Inferior
Argyleshire:			
Obaw district	None	Little	Average
Lochgilphead district	None	Little	Inferior
Cowal district	Little	Little	Inferior
Inverary district	Little	Usual	Inferior
Dumbartonshire	None	None	Average
Stirlingshire:			
Western district	None	Little	Average
Eastern district	None	None	Better
Fifeshire:			
Eastern district	None	None	Good
Middle district	None	Little	Good
Western district	None	None	Average
Perthshire:			
Southwest district	Little	Little	Good
Cuper-Angus district	None	None	Better
Western district	None		Inferior
Strathearn district	None	None	Excellent
Highland district	Little	None	Inferior
Dunkeld and Stormonth districts	None	Little	Better
Forfarshire	None	None	Fair
Aberdeenshire:			
Buchan district	None	Little	Above average
Fomartine district	Little	None	Good
Garrioch district	Little	None	Good
Shathbogie district	None	Considerable	Poor
Banffshire (lower district)	Little	None	Average
Morayshire (lower district)	None	Little	Average
Nairnshire	None	Little	Average
Invernesshire:			
Inverness district	None	None	Average
Beanly district	None	Little	Good
Skye district	None	None	Inferior
Lochaber district	None	Considerable	Average
Rosshire:			
Western district	None	Some	Bare
Dingwall and Munlochy districts	None		Inferior
Mid-Ross, Eastern Ross, and Cromarty districts.	None	A little	Fair
Sutherlandshire	None	A little	Fair
Caithnesshire	A little	A little	Good
Orkney	None	None	Excellent
Shetland (Lerwick district)	None	Little	

NOTE.—No reports from Argyleshire (islands of Isley, Jura, and Colonsay), Banffshire and Morayshir

How stock throve.	Diseases.	Quantity and quality of wool.
Well	None	Average.
Not well	None	Average.
Well	None	Average clip of good quality.
Well	None	Below average.
Well	None	Short clip.
Sheep well; cattle not so well	Sheep free; some pleuro	Short clip; good.
Badly	A few cases of pleuro	Below average.
Well	None	Clip short; quality good.
Fairly well	None	Inferior.
Well	Some pleuro	Clip short, but good.
Fairly	None	Clip short, but good.
Well	A little pleuro	Below average.
Well	Braxy (fatal among sheep)	Inferior and below average.
Well	None	Inferior.
Fairly	None	Below average.
Well	None	
Well	Some pleuro	Average.
Well	None	
Fairly	None	
Fairly	None	Average.
Not so well	None	Short clip .
Fairly well	None	Below average.
Fairly	None	Inferior.
Well	None	Below average.
Fairly	One outbreak of pleuro	Below average.
Well	None	Average.
Well	None	Average.
Fairly	None	Average.
Fairly	None	Average.
Fairly	None	Below average.
Well	None	Average.
Not so well	None	Under average.
Well	Very little	Average.
Fairly	None	Short clip; good quality
Fairly	None	Below average.
Well	None	Good.
Well	A little pleuro	Average.
Well	A little pleuro	Average.
Well	Little	Below average.
Badly	None	Good.
Well	None	Average.
Well	None	Average.
Well	One case of pleuro	Short clip.
Well	Some cases of pleuro	Average.
Well	A few cases of pleuro	Above average.
Poorly	None	Short clip.
Well	None	Short clip.
Fairly	None	Rather short clip.
Poorly	None	Average.
Well	None	Average.
Well	One case of pleuro	Good quality; short clip.
Well	None	Average.
Well	None	Average.
Well	None	Good quality; short clip.

(upper district), and Shetland (island of Unst).

SUGAR-BEET IN DENMARK.

REPORT OF CONSUL RYDER.

Returns of the sugar-beet yield in 1886 from the different sugar-beet factories and district stations have now been placed before the public in a precise form.

That which has in great measure tended to influence favorably the yield of this product in 1886 is the circumstance of the young plants having been enabled to start up in the spring of the year in great abundance and with great uniformity. When this is the case and when the devastating attacks of insects and pests are avoided, it will take a great deal to produce evil results later on to this root crop, although it cannot be denied that the spring weather in this northern climate is always attended with considerable risks. The month of May is frequently so exceedingly dry that the seed cannot receive sufficient moisture for a favorable sprouting, and, for this season, it is a matter of primary importance in this climate to sow sugar-beets whilst there is still sufficient winter moisture in the soil to allow the seed to sprout even when rain is delayed. In 1886 the land was in especially good condition for sowing, and the months of April and May were favored with a good supply of steady falling rain, the rainfall in the driest summer months approaching somewhat to the normal.

A dry June is not so hurtful to the early-sown roots, especially in singling the young plants. Whilst the rainfall of June, 1886, in no place reached the normal, that of July was of a passably normal nature.

The month of August was, on the other hand, a period of severe trials for these roots, especially on the islands of Lolland and Moën, the rainfall having there measured only 16 and 23.6 millimeters against the normal rainfall of 60 millimeters.

The island of Fyen was more favorably situated in this respect, with 46.7 millimeters at Assens, and with 45.8 millimeters at Odense.

WEIGHING TESTS.

The results of the weekly weighing tests in the weeks from the 12th–14th August to the 9th–11th September were of the following nature:

Weighing test.	Nakskov.	Möen.	Assens.
	Centner.	*Centner.*	*Centner.*
	160	200	.....
		213.5	243.3
			051

The month of September, with its high temperature and in spite of the small rainfall during the first half of the month, was exceedingly favorable to the roots. They grew well with the aid of the long nights, the heavy dews, and warm temperature, and the saccharine contents were found to be very high at the opening of the campaign.

It is, however, very probable that these roots, so far as Nakskoo was concerned, at the approach of harvest time did not come up to the normal, and had matured too abruptly; and that the rainfall during the last half of September and in October, which contributed to the very large increase in the centner yield per barrel of land, tended also to bring the quantitative value of the roots up to a more normal condition.

The island of Fyen was the part which throughout was absolutely favored with the most propitious summer weather for the normal development of the roots; and when this island has finally the lowest centner yield for barrel of land, this must undoubtedly be attributed in part to the poorer natural quality of the land, as also to a more sparing use of artificial manures, and altogether to a lower state of cultivation.

A comparison between the saccharine contents of the roots, from investigations made at the factories, with the centner yield per barrel of land, gives the result that no positive relation can be said to exist between the quantitative and the qualitative yields, but that a large centner yield and good quality (high manufacturing value) may for all that be united and reconcilable.

HENRY B. RYDER,
Consul.

UNITED STATES CONSULATE,
Copenhagen, April 20, 1887.

RAINFALL.

[In millimeters.]

Stations and factories.	Centner per barrel land.	April.	May.	June.	July.	August.	September.	October.	Together.
Nakskoo	340	35.1	29.8	34.6	71.7	21.1	65.3	44.1	301.4
Majbolle	295	38.7	29.7	38.4	84.3	19.8	57.8	47.2	315.9
Groshave	343	36.2	31.8	39.4	78.2	17.8	62.7	51.0	317.3
Stokke-Norke	271	31.5	29.3	40.8	51.2	10.5	52.8	52.0	268.1
Vesterborg	307	35.1	25.8	29.0	54.7	13.6	53.3	42.7	254.2
Horslunde	311	31.1	35.5	22.8	62.9	14.2	57.1	51.6	275.2
Nakskov factory	313.21	34.6	30.3	34.2	67.2	16.1	58.2	48.1	288.7
Stege	326	20.2	30.3	54.6	49.2	20.1	40.4	44.5	259.3
Dame	306	24.0	32.0	33.0	55.9	29.4	35.8	39.4	249.5
Damshotte	318	19.7	33.1	30.8	50.8	24.8	42.1	44.4	245.7
Pollerup	330	17.2	34.9	47.0	40.2	20.0	39.0	37.6	235.9
Stege factory	321	20.3	32.6	41.4	49.0	23.6	39.3	41.5	247.7
Assens	289	31.5	47.7	29.4	65.9	50.1	24.0	49.5	298.1
Uglebjerg	265	32.6	44.9	30.0	59.7	55.4	42.3	68.1	333.0
Salbrovad	279	16.2?	49.5	26.1	55.6	48.1	38.6	[illegible]	[illegible]
Haarby	250	34.3	45.4	27.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Assens factory	274	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Odense	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

COTTON AND COTTON-SPINNING IN JAPAN.

REPORT OF CONSUL JERNIGAN.

NATIVE COTTON.

The cotton plant is not a native of Japan. It was introduced from India by the votaries of the Buddhist religion, who, fleeing from persecution in their native land, sought in China and Japan the free exercise of their faith.

Cotton reached Japan nearly a century before it was received in China.

In A. D. 800 the seed was first sown in Japan, but at the close of the twelfth century the cultivation appears to have been abandoned, and it was not until the close of the sixteenth century that its cultivation was again commenced. It is recorded in Japanese history that during the latter date, and before the culture of the plant began to spread, one pound of yarn sold for $100.

The cotton grown in this consular district, in comparison with the plant in the Southern States, looks very small and unproductive. It does not appear to grow more than 18 inches high on an average. The leaves and bolls are small, and instead of the seed being sown in the center of the bed or ridge they are sowed on the outer edges, making two rows, where in the cotton States there is only one. The staple is not very good. It does not compare in firmness of texture with the cotton produced in the United States.

As soon as the cotton bolls or pods open they are plucked and, if the weather be favorable, are exposed to the sun to dry. If the weather is not favorable they are dried by artificial heat.

The lint is separated from the seed by means of rubbers, consisting of two small wooden rollers, which revolve in opposite directions and throw off the hard, smooth seeds. This leaves the lint full of knobs and impurities, and it has to be carded before it can be used even as lining.

The Japanese have a great deal to learn about the cultivation of cotton. They know this, and therefore will improve. The useful inventions of Jacquard and Arkwright are recognized and are being utilized.

AMOUNT OF PRODUCT.

According to the fifth annual report of the Imperial bureau of statistics for Japan, published in September, 1886, the following are the number of bales, weighing 400 pounds each, produced during the year named:

	Bales.
.....	297,396
.....	436,387
.....	296,296

ally made is underestimated. I have compared the statistics, giving the quantity produced in certain localities with the quantity actually made, and find that the opinion of the farmers is correct, and that the figures should be accepted as an approximation only.

It should not be understood that a cotton bale in Japan weighs 400 pounds. It is much smaller, and can easily be handled by one man. There is no symmetry about the shape of it. It resembles a large bag into which cotton has been closely pressed with the hands, and then ropes tightly tied around it.

The central and southern parts of Japan are better adapted to the growth and cultivation of cotton, but on account of the annually increasing importation of ginned cotton from China the lands under cotton in Japan have gradually become of less extent.

SPINNING-MILLS.

The amount of the yearly production, if compared with that imported from abroad, will not reach one-seventh of the annual importation of cotton yarn during the last ten years. There are now in successful operation in Japan 21 spinning-mills, with 74,120 spindles, and representing a capital of 2,000,000 yen (one yen is equal to about 78 cents in gold), and producing annually about 3,686,135 catties of yarn (one catty is equal to 1⅓ pounds).

The first inauguration of a cotton-spinning mill in Japan was that established at Kagoshima, by Prince Shimadzn, ex-daimio of the province of Satsuma, in 1868. This mill contained 6,000 spindles, and all the machinery was procured by the prince from England. Under the auspices and encouraged by the authorities other mills were soon afterwards erected, but at first this new industry was not seemingly successful. Recently, however, it has been developed and improved, and is now enabled to produce the material which meets with the requirements of the domestic customers. In the language of one of the leading native journals, "Our cotton-yarn spinners are now very busily and prosperously engaged in the production of this article, and no matter how much they produce of the article, they never find that their markets are glutted."

The mill that has attained the greatest degree of prosperity is located in this consular district, at Osaka. Its affairs are in so prosperous a condition that the capital invested was, a short time ago, increased to 600,000 yen ($486,000), new machinery of the latest pattern purchased, and a dividend at the rate of 18 per cent. per annum paid to the shareholders.

The second largest is the Hisoshima Spinning Company, with a capital of 201,420 yen ($163,150) and 500 spindles.

The third, the Nagoza Spinning Company, the capital amounting to 146,580 yen ($118,729) and number of spindles to 8,000. The smallest of the 21 cotton-mills is the Dojima, with a capital of 3,000 yen ($2,430) and with 3,000 spindles.

IMPORTS OF YARN.

The importation of

purchasing cotton yarn since 1867 is estimated to be about 88,800,000 yen ($71,928,000). It is this immense outlay for a product that can be made and manufactured at home that is causing the Japanese to give more and careful attention to the planting, cultivating, and manufacturing of the cotton plant, and giving such a "boom" to the cotton-spining industry in this Empire.

The feeling of national pride, too, enters largely into the subject, for the Japanese are quick and sensitive, and love their island home and all that pertains to its honor and prosperity.

Nearly all the cotton yarn imported by Japan comes from Great Britain and the East Indies.

The following tables are compiled from the latest statistics I have, and show the importations for the year 1885 by Japan from the countries named:

	Catties.
Cotton yarn:	
Great Britain	12,131,200
East Indies	9,266,181
	Yards.
Printed cottons:	
Great Britain	3,271,892
France	35,669
Germany	36,948
Switzerland	119,969
Other countries	2,589
Cotton drills:	
Great Britain	1,202,906
United States	50,251
Other countries	12,091
Cotton satins:	
Great Britain	1,108,455
Germany	1,889
Other countries	7,460
Cotton velvets:	
Great Britain	2,027,458
France	1,307
Germany	248
Shirtings, gray:	
Great Britain	29,233,222
East Indies	3,200
Other countries	2,727
Shirtings, white:	
Great Britain	1,660,913
United States	55,332
Other countries	1,178
Shirtings, dyed:	
Great Britain	949,913
Holland	72,000
France	14,952

AMERICAN TRADE WITH JAPAN.

To the above tables I would add that during the year 1885 Japan imported from China 4,398,471 catties of raw cotton.

[illegible] to Great Britain the larger and controlling inter- [illegible] India is now acquiring a great [illegible] and has the

trade with Japan. A country that produces every year more than one-half of the whole world's annual consumption should not remain satisfied with selling to Japan only 100,000 yards of cotton cloth. If the other countries on which Japan draws so largely every year for her supply of this staple can make it profitable, why cannot the United States compete successfully with them? Our soil is fertile and better adapted to the growth of cotton than the soil of any other part of the globe. The fabric and texture of our cottons are better and finer than that manufactured anywhere else. Our machinery is cheaper and labor ample. Then, if the fault is not in our stars, it must be in ourselves. If the merchants and manufacturers of the United States desire to sell to Japan their cotton goods, I believe that they can do so as successfully and as profitably as the merchants of any other nation, if they will come to Japan, survey properly the business field, and study the peculiarities and wants of the Japanese. It is a mistake to suppose that such a result can be accomplished by merchants of ordinary business capacity. This class of merchants had better remain at home. They will not succeed in enlarging our trade relations, but the *bona fide* American merchant, with his simple, honest, and straightforward way of doing business, would be popular with the Japanese, and would succeed. In my annual report of December last, I stated that the Japanese preferred a better quality of goods more than the quality that sold so readily in their markets a few years ago. I now submit, in this connection, a few extracts from the views of the Tokio Chamber of Commerce, which have lately been made public:

The decline in the use of English gray shirtings by the Japanese people as compared with five or ten years ago is very easily explained. Careful examination shows that both the texture and wearing quality of those recently imported are bad, and deteriorating quality has finally brought the Japanese to view them with dislike.

* * * * * * *

There is no great falling off in the appearance of the gray shirtings now imported as compared with those which were imported in the years 1860, 1870, and 1880, but there is a most serious falling off in the texture and wearing quality. The present gray shirtings, when compared with those of previous years, are deficient in fineness of texture, are largely sized, do not last long, and quickly tear.

* * * * * * *

The texture should be fine, the wearing quality good, and price as moderate as possible.

* * * * * * *

It may be concluded that the Japanese would much prefer to purchase a good article at a reasonable price rather than a bad one at a low price.

The following table shows the average price of gray shirtings:

Quality.	1875.	1880.	1885.
Best quality, 3 widths, per piece of 38 yards	$2 65	$2 57	$3 02
Medium quality	2 47	2 45	2 15
Lowest quality	2 35	2 20	1 90
Best quality, per piece of 24 yards (T-cloths)	1 75	1 55	1 52

* * * * * * *

To make gray shirtings agreeable to the Japanese [illegible]
that the pieces should be

per piece of about 11 yards in length and 14¼ inches in width; Japanese moka 75 sen per piece of the same dimensions. A comparison of the wearing qualities of the two shows that the ratio of difference is even greater than the price; *i. e.*, that moka has more than three times the wearing quality of gray shirtings; that if one year be taken as a limit of the wearing capacity of gray shirtings, that of moka will be three years or even three and a half years.

From the above extracts it appears that in the case of imported cotton fabrics cheapness should not be a paramount consideration and quality a matter of indifference, and this may be accepted as true in reference, generally, to all other arcticles of import. The Japanese are not parsimonious. Their own manufactures prove that they are not. Goods in Japan do not owe their popularity to cheapness at the expense of excellence, and the duability of an article is its first recommendation.

CONCLUSION.

The machinery used in the cotton-mills of Japan is, like the cotton fabrics, principally purchased from Great Britain. However, the Germans are now fast growing into popularity with the Japanese. In fact, they are already the favored race. Everything in Japan is becoming Germanized. Contracts for public buildings are awarded to the Germans. Army and navy discipline is borrowed from German regulations, and Germany's trade relations have, within the past few years, rapidly enlarged and increased in volume. All this may be owing to the fact that the new form of government for Japan, which is to go into operation in 1890, will be modeled after the form of the German Government, and the Japanese Parliament to assemble in 1890 will be like the German Reichstag. The wish to familiarize the Japanese people with the habits and customs of the German people may be cause of their special favoritism. But whatever the cause may be, I do not feel any alarm for the business safety of the English-speaking race.

The Government of Japan, like other Governments, will fill its orders in the best markets, and the United States can offer inducements as favorable as any other country possibly can.

There is a fair demand in Japan for railroad materials and machinery of almost every description for army and navy wants.

New lines of railroads are at present being projected and will annually be on the increase.

The army and navy are being reorganized and improved arms of every description introduced. Though the Japanese Government does control the railroads, though its supervision over public and private enterprises is exercised freely and with vigilance, this is no reason why our engineers, mechanics, and manufacturers should not supply Japan, in a larger degree, with all her needed materials.

If they wish to take at its ebb the tide of Japanese prosperity, [illegible] on the spot. Their genius, talent, and energy, illus- [illegible] to be earnestly directed to-

THE UPPER YANGTZE STEAM NAVIGATION COMPANY.

REPORT OF MINISTER DENBY,

Section III of the Chefoo convention stated:

The British Government will further be free to send officers to reside at Chungking, to watch the conditions of British trade in Szechuan. British merchants will not be allowed to reside at Chungking, or to open establishments or warehouses there so long as no steamers have access to the port. When steamers have succeeded in ascending the river so far, further arrangements can be taken into consideration.

Chungking, situated on the Upper Yangtze River, and in the rich province of Szechuan, has long been one of the most important marts of trade of China and the principal one of the western part of the Empire. Baron von Richthofen estimated, in 1872, the grand total of all the export trade of the province of Szechuan considerably above 12,000,000 taels, and that of Chungking, which descended the Yangtze in 1871 in foreign bottoms, as unquestionably over 4,000,000 taels.

The British consular agents, who, under the provisions of the Chefoo convention, have resided at Chungking since 1877, have in their commercial reports estimated the annual value of foreign goods imported by junks to Chungking at $500,000.

The organization of "The Upper Yangtze Steam Navigation Company, London," for the purpose of constructing and running a steamer from Hankow to Chungking, is, in view of the undoubted value of the Chungking market to foreign trade, an undertaking which elicits the sympathy and interest of all mercantile classes in the far East.

The capital of the company is fixed at $50,000, divided into 100 shares, of $500 each, and has been already subscribed. It is proposed to build in Shanghai a powerful light-draught steamer, carrying about 200 tons dead weight and 150 passengers. It is computed that the net earnings of such a steamer will yield return at about $30,000 on the capital invested. As soon as this pioneer boat has demonstrated the practicability of steam navigation on the Upper Yangtze, the capital of the company will be increased and shares offered to the public.

The only difficulty which may present itself, after the question of navigating the upper river has been solved, is the position the Chinese Government will take. The possibility of this port being opened has caused no pleasure to the Chinese authorities, and their further action in the premises is looked for with some anxiety. When in 1885 the French plenipotentiary in China was negotiating at Tientsin the commercial treaty for Tongking, it is said that he endeavored to obtain the right for France conceded to Great Britain by the Chefoo convention, to send a commercial agent to Chungking, but the Chinese Government peremptorily refused. I have also heard it said that the concession contained in [illegible] vention, quoted [illegible]

which I do not believe to be an over-colored picture of the importance of this trade to western nations.

CHARLES DENBY.

LEGATION OF THE UNITED STATES,
Peking, April 27, 1887.

[Weekly London Times, March 4, 1887.]

THE UPPER YANGTZE AS A TRADE ROUTE.

In the Times of January 18 appeared a communication on new markets for trade in China, in which chambers of commerce in this country were urged to give up for the present any attempts to open Tibet and to turn their attention to other parts of the Chinese Empire, where success was more likely to attend their efforts. It was argued that at the present time it was not expedient to continue worrying the Chinese about Tibet, seeing that the convention in which we promise to give them time for inquiry has not yet been ratified, while no such objections existed to endeavoring to get the Canton River opened to trade as far as Nan-ning, and the Yangtze as far as the wealthy and populous town of Chungking, in Szechuan, 1,400 miles from the sea and 400 miles beyond Ichang, the highest port at present open by treaty on the river. The Chefoo convention provided that the port of Chungking was not to be opened to foreign trade until a steamer had ascended the river to the place; but whenever a steamer succeeded in reaching the port the Chinese promised to take into consideration the regulations under which it was to be opened to trade. The reason for this guarded arrangement was that it was doubtful whether the rapids in the river above Ichang, in what are known as the Ichang gorges, were navigable. Our knowledge of the Upper Yangtze in 1877 was comparatively small, few travelers having thoroughly examined the higher reaches since Captain Blakiston's journey of twenty-five years ago. Writing in 1882, Sir Thomas Wade, the British negotiator of the convention, explained the "peculiar conditions" under which Chungking was opened:

"Our merchants were not to reside there until steamers should have ascended the river. My object in suggesting or acceding to this arrangement was to admit of the establishment of a regular customs staff before a British community should be invited to fix its residence at Chungking. No steamer has yet attempted the ascent of the river above what are known as the Ichang gorges, the most enterprising having been deterred, as I have reason to think, by the suspicion that the rapids, which succeed each other at long intervals for about 100 miles above Ichang, present an insurmountable difficulty."

It is as true now as it was in 1882 that "no steamer has yet attempted the ascent of the river," but the reproach, for reproach it undoubtedly is, to the enterprise of British merchants in China is about to be removed. Since 1878 various energetic consular officers have resided at Chungking under the provisions of the Chefoo convention; they have investigated the neighboring regions, and have traveled up and down the Yangtze rapids in all seasons of the year. In this way a precise knowledge of the difficulties of the navigation has been obtained, and also a more accurate estimate of the prize to be gained in surmounting them. Mr. Baber, who was the first British official to reside at Chungking, and who was there for four years, made light of the obstacles presented by the rapids. Mr. Spence, his successor, who wrote a special memorandum in 1882 on the subject, said that merchants formed an excessive estimate of the dangers and difficulties of the passage of the rapids:

"I have been up and down them in Chinese junks at all seasons of the year—in the height of the summer freshet and at the lowest winter level—and I am firmly [illegible] their practicability for small, handy, light-draught, full-powered [illegible] without the aid of more than the ordinary [illegible] months the ordinary

"If a boat drawing 4 feet can be dragged over by a hundred men and boys, half of whom merely shout and leave the pulling to the other half, what is there to prevent a steamer of special construction, of equal draught, and with a steam-power exceeding the strength of half a hundred men and boys, from ascending?"

These strong opinions from a succession of consular officials who were in the best position to form correct estimates of the real difficulties of the navigation were all unheeded; no merchant or chamber of commerce made an effort to solve this question of such great importance to our trade with China—a circumstance it is well to note in view of the recent complaints against British consuls of apathy. On this occasion all the energy was that of the consuls; the apathy was on the part of the merchants. Ultimately, Mr. Archibald Little, a merchant, settled at Ichang, who was interested in Yangtze navigation, went up the river into Szechuan, and examined the rapids for himself, as well as the markets beyond. Like Messrs. Baber, Spence, and Hosie, he came to the conclusion that the difficulties were greatly exaggerated, and that the river was quite navigable for steamers constructed for river navigation. The main point in the construction is to minimize the hold of the current on the vessel; hence it should be flat-bottomed and should have a small draught of water. With a view to obtaining assistance from those interested in the trade with China to construct a pioneer steamer, Mr. Little has come to England, and has, happily, been quite successful in his mission. The sum required was a small one (only £10,000), and it is not clear why the chambers of commerce and merchants in China did not make it up among themselves. In this country the chambers of commerce were very glad to hear Mr. Little lecture on the interesting region beyond the gorges; they thanked him for his discourse, as well they might, but gave him little assistance towards opening the region in question to British trade. In spite of the apathy of those principally interested, the required funds have been obtained; the engines for the pioneer steamer will be constructed by a firm especially experienced in the machinery required for river navigation, and the vessel will then be bullt in Shanghai. Mr. Little himself will accompany the vessel on her first journey, which it is to be hoped will prove successful.

The importance to British trade in general of the first trip of this steamer up the Ichang gorges can be demonstrated in a few words. In the first place, when Chungking is opened it becomes subject to the ordinary regulations affecting treaty ports, and consequently foreign merchandise will be freed from all inland transit dues, which, when a transit pass is taken out at the port of entry, is nominally 2½ per cent. At present one of the greatest transit barriers in China is situated at Kwei-chow Fu, on the Yangtze, below Chungking. British manufactures could be laid down in Chungking, 1,400 miles from the sea, and a great center for trade with Szechuan, Yunnan, Tibet, and other places, for the same duty they pay at Shanghai. This considerable reduction in the price of our goods in the far interior of China is the first benefit which will follow the successful voyage of the pioneer steamer. Then Szechuan, for which the Yangtze is practically the only outlet, is one of the wealthiest and most populous provinces in China. Its situation has saved it from the devastation which recent rebellions have brought upon other provinces; the soil is fertile, growing two crops a year, of which the poppy is one, while the land tax, which was, for historical reasons, originally low, is only levied on one crop. The population, therefore, is able to buy, and seven or eight years ago imported by junks up the river foreign goods to the estimated value of £700,000. Now, as in addition to the transit dues this trade is burdened with enormous charges for carriage, it can be readily understood that under more favorable conditions it is capable of great expansion. The freight up the river to Chungking is about 70*s.* per ton and 14*s.* down, all risk of loss on the rapids being borne by the shipper. Even with these drawbacks the present traffic up the river is estimated at 10,000 tons a month up the stream and the like amount down. The population of Szechuan alone is 30,000,000. Mr. Spence, in the report quoted above, speaks of the "rare productive capacity" of the province, and of "the abounding prosperity of its people." He goes on to say that the stimulus the opening of Chungking would give to the consumption of British manufactures, not to say to foreign enterprise in general, is obvious, and none appreciate this better than the Chinese importing firms in the town. Beyond Chungking, Mr. Spence adds, "we shall find to the north, northwest, and west hundreds of miles of great water[illegible] steamers will be sought for by the Ch[illegible] come up the

tze to investigate the strict facts and to report them. Hence Mr. Little's expedition will be watched with great interest; if his bark does not carry Cæsar and his fortunes, it carries a large part of the fortunes of the British trade of the future with one of the largest and wealthiest of the unopened markets of the world.

CHINESE RAILWAY COMPANY.

REPORT OF MINISTER DENBY.

I inclose a prospectus issued on the 12th instant by the newly-organized "Chinese Railway Company."

The railroad in contemplation is an extension of the Kaiping Railway, which has been in operation for some years.

In its prospectus the company, to dispel doubts "existing in the public mind as to the ability of the Kaiping Railway to make substantial profits," gives a few figures to show that there remains a balance over and above the working expenses of the road sufficient to pay a dividend of from "five or six to, if all goes as well as expected, 10 per cent."

The company now desires to increase the capital by 1,000,000 taels, and this sum it is proposed to raise by issuing 10,000 shares of 100 taels per share.

The following assurance given to would-be shareholders is highly suggestive:

In the administration of affairs this company will adhere strictly to economy and efficiency, untrammeled by official direction, and by not allowing foreign merchants to squander the capital; but the chief aim will be the establishment of an administrative system free from faults and beneficial to the company, a system that will not relax into remissness nor allow the company to exist only in name, as some companies in China have done.

CHARLES DENBY.

LEGATION OF THE UNITED STATES,
Peking, April 19, 1887.

[The Chinese Times, April 16, 1887.]

PROSPECTUS OF THE CHINESE RAILWAY COMPANY.

In the year 1886 the Kaiping Railway Company undertook the construction of a railway from Hsü Ko Chuang, at T'ang Shan, to Yen Chuang, on the river Chi, and for this purpose they raised a capital of 250,000 taels by issuing 2,500 shares of 100 Tientsin taels each. The total length of the new railway, in connection with the one previously constructed, is 90 li, and the work, when completed, was pronounced most successful. Recently the board of admiralty submitted a memorial to the Throne, proposing the construction of a railway from Yen Chuang to Lu T'ai, Peitang, and the north shore of Taku to Tientsin and other places, the total length contemplated railway being about 80 li, in order to facilitate the transport of the convenience and benefit of the mercantile and management of the new of Her Im-

from 10,000 taels to 20,000 taels; from passenger traffic, over 10,000 taels. Deducting 20,000 taels or 30,000 taels from the above earnings for expenses, working, and maintaining the railway, there remains a balance sufficient to pay a dividend of from 5 or 6 to, if all goes as well as expected, 10 per cent. If the line is extended to Taku and Tientsin, it will pass through various salterns, towns, villages, and landing places of the steamers, from all of which it will be easy to obtain considerable and adequate freight, and the profit derivable therefrom cannot possibly fall below that obtained at the Yen Chuang Kaiping section of the road. Therefore no one need doubt the ability of the entire line to pay an annual dividend of from 5 or 6, or even, when traffic is developed, 10 per cent. The company now desires to increase the capital by 1,000,000 taels, and this sum it is proposed to raise by issuing 10,000 shares of 100 taels per share. A set of regulations, which are appended below, have been prepared. In the administration of affairs this company will adhere strictly to economy and efficiency, untrammeled by official direction, and by not allowing foreign merchants to squander the capital; but the chief aim will be the establishment of an administrative system free from faults and beneficial to the company, a system that will not relax into remissness nor allow the company to exist only in name, as some companies in China have done. If any gentlemen should desire to become shareholders, they are requested to send their names and addresses, together with the number of shares they wish to subscribe, to the company's head office at Tientsin for registration, and the share money should be deposited with the Hong-Kong and Shanghai Bank at Tientsin, in return for which the company's share certificate and pass-book will be given. Those friends residing in other ports who wish to subscribe for shares are invited to call at the Hong-Kong and Shanghai Bank offices in their respective ports, and having registered their application for shares will deposit the money with the bank and receive provisional receipts until such time as the company is able to issue regular share certificates, when the bank receipts must be given up for cancellation. Although the capital that is now subscribed is intended for the construction of the Yen Chuang Taku Railway, yet should the line be hereafter extended, any money on hand will be used for such extension, consideration being taken according to the respective priority of the shareholders, those having entered their shares first being entitled to such preference as may justly be due. As this company is formed on an upright and trustworthy basis, and will never fail to act up to its principles, it is to be hoped that gentlemen wishing to become shareholders will not hesitate or delay.

The following regulations, enacted by the Kaiping Railway Company, are herewith appended:

(1) "It is proposed in the memorial of the board of admiralty to the Throne, approved by imperial decree, that this company should be entrusted with the construction of a railway from Yen Chuang to Lu T'ai, Peitang, Taku, Tientsin, and other places, the whole length of the railway being 180 li. The company, in order to obtain the necessary capital of 1,000,000 taels for purchasing land and materials for erecting stations, building bridges, &c., now propose to raise the sum required by issuing 10,000 shares at 100 taels per share, and those who are already shareholders and others from the official and mercantile classes are now at liberty to subscribe for any number of shares required.

(2) "This company has been called the Kaiping Railway Company because the original line was built at Kaiping in T'angshan, but since the line is to be extended to Taku and Tientsin, it will necessarily pass through many towns and places, and the name of Kaiping as applied to the company will be no longer appropriate. It is proposed, therefore, that, following the custom of the Chinese Merchants' Steam Navigation Company and the Imperial Telegraph Company, the Kaiping Railway Company shall hereafter be designated as *The Chinese Railway Company*.

(3) "The capital that is now being raised shall be added to the 250,000 taels subscribed last year, and the entire funds shall be used for the company's purposes.

The earnings of the company shall be divided pro rata among the shareholders according to the number of their shares; but as the old shareholders paid for their shares last year, they are entitled to due consideration when the first dividend of the company is paid, so that justice be done.

(4) "Whenever the company have to purchase rails or other materials, they will notify the different mercant le firms to hand in tenders for the same, and the tender that offers the best article at the lowest price shall be accep[illegible] economy will be secured. As to the [illegible] engage those that built

Salt Gabelle and ex-superintendent of maritime customs at Tientsin, have been appointed directors of the company, and these high officials are to be vested with powers pertaining to the maintenance and protection of the company's railways. In all cases where the company meets with difficulty, or in dealings with local authorities, these high officials are to assume responsibility. Wu Ting-fang, expectant taotai, and Wu Nan Kao, expectant prefect, manager and assistant manager respectively of the Kaiping Railway Company, are hereby appointed manager and assistant manager of this company. The company will conduct all its affairs upon true business principles, neither carrying on its correspondence officially nor accepting any official seals; neither engaging wei-yuans, nor employing runners. In all matters requiring consultation, the board of directors shall first be convoked for deliberation, and when a decision has been made will report same to the head directors. The officers of the company will never take action without having first submitted it to the deliberation and approval of the board of directors. The officials will not take advantage of the merchants, nor will the merchants impose upon the officials; therefore intending shareholders may feel assured.

(6) "In all matters pertaining to the appointment of managers, the election of a board of directors, the engagement of superintendents and other employés, the management of finances, the payment of dividends, the resale of shares, and all other matters, the company will conform to the general laws and regulations of corporations in western countries. Articles 5th, 6th, 7th, 8th, 9th, 10th 11th, 12th, 13th, 14th, 15th, &c., in the regulations of the Kaiping Railway Company shall be adopted, and whatever has not been provided for in the above articles shall be supplied from the laws of railway corporations in western countries, selecting such as are beneficial to the company, and adapted to the circumstances of China.

(7) "After twelve months from date of commencing operations, the company's treasurer shall draw up a detailed statement of expenditures and receipts, and shall submit copies of the same to all the shareholders. A date will also be fixed when the head directors, managers, board of directors, and shareholders shall be convoked to jointly deliberate on the company's affairs, and to examine the accounts submitted, and to decide upon the dividend to be paid. Afterwards a meeting for ends similar to the above shall be convened yearly."

FOREIGN TRADE OF CHINA IN 1886.

REPORT OF MINISTER DENBY.

Although the value of trade in 1886 has been greater than any previously recorded, being 164,685,800 taels,* it is said that business has not been in all departments advantageous to the producer or the merchant. Overproduction and overcompetition, as well among the foreign firms as among the Chinese, seem to be the chief causes of this state of things.

The shipping statistics show an increase of 5,804 vessels, aggregating 3,687,589 tons, over the preceding year. The total number of vessels which entered and cleared the customs in 1886 was 28,244, with an aggregate tonnage of 21,955,760 tons. In 1885, 18,807 vessels of 11,983,591 tons burden entered and cleared at the treaty ports. This was the first year that the customs published a general table of the foreign shipping at the treaty ports.

The customs revenue for 1886 were 15,144,678 taels, an increase of

the only ones who have been benefited by the exceptionally large operations of the year unless we include also the Government, which gets a revenue proportional to the amount of the export."

The exports of silk in different forms has been on a much larger scale than in former years, its estimated value being for 1886 about 28,800,000 taels.

The export of sugar has considerably fallen off in the last few years, being 612,476 piculs in 1886, 827,236 piculs in 1885, and 1,571,105 piculs in 1884. The decline is ascribed by the customs "to the imposition of new taxation in Formosa; the competition of other sugars, especially Javas, the influence of protection given to sugar cultivation in other countries, and the drought prevalent in the southern sugar-producing provinces.

IMPORTS.

The total value of the import of foreign goods from foreign countries in 1886 was 89,499,323 Haikwan taels against 88,200,01[illegible] Haikwan taels in 1885 and 72,760,758 Haikwan taels in 1884. Last year's imports show a falling off in the value of opium, cotton goods, miscellaneous piece goods, and metals, and an increase in the value of imports in woolen goods and sundries of 3,441,332 taels.

An interesting fact is disclosed by the official table giving the total importation of opium into Hong-Kong and its excess over the entries at the treaty ports, by which we learn that the value of this excess (which may, roughly speaking, be taken as the value of the smuggling trade in opium with China) was 9,337,166 taels in 1886.

The import of kerosene in 1886 was 22,800,000; in 1885, 14,700,000; in 1884, 7,000,000. While we find that the consumption of kerosene at the northern ports is less than it was in 1885, that in nearly all the southern ports has increased greatly, being 2,600,000 gallons, whereas it was only 1,800,000 in 1885. "This gain, however," the report tells us, "does not represent increased consumption, the stocks at Shanghai at the end of 1886 being 10,500,000 gallons."

Looking at the trade of the United States with China during the last year, we find that its value was 14,333,024 taels, being an increase of 2,719,906 taels over that of 1885. The following table, showing the steady increase of our trade with China during the last eleven years, may be of interest:

Year.	Exports from China to United States,	Exports to United States from China.
	Taels.	*Taels.*
1876	7,259,018	738,528
1877	7,951,203	1,138,136
187[illegible]	6,576,125	2,253, 48
1879	8,966,693	2,540,763
1 80	8,106,917	1,204,525
1881	10,222,335	3,300,312
1882	8,420,130	3,276,728
1883	[illegible]	[illegible]
1884	[illegible]	[illegible]
1885	[illegible]	[illegible]

ports, a falling off of 180 over 1883. In 1886, 16,193 British vessels entered and cleared at the treaty ports. While Great Britain had 75.28 per cent. of the foreign carrying-trade with China, Germany 5.55 per cent., France 7.30 per cent., we had 0.91 per cent. It is also worthy of note that in 1886 no American steamer visited Shanghai.

As above mentioned, the low rates of exchange have exercised a great influence on the trade of last year, encouraging the trade of silks and occasioning heavy losses to those engaged in the tea business; "it has been," remarks the writer of the report, "an element which has affected many departments of foreign trade during the year to an extent only less grave than war itself would have been. The course of exchange during 1886 was lower even than in 1885." Thus the Shanghai tael exchange on London, which was 4.11¼ in January, 1885, was 4.7¾ during the same month of 1886, and in August, 1886, it fell to 4.3⅜, the lowest rate being 4.3¼ on the 19th August.

CHARLES DENBY

LEGATION OF THE UNITED STATES,
Peking, May 17, 1887.

MINOR INDUSTRIES OF HONG-KONG.

REPORT OF CONSUL WITHERS

WORKING IN BRASS AND COPPER.

The Chinese are quite expert in the manufacture of various articles for use and ornament, from brass, copper, and yellow metal. The importation of late years of yellow-metal sheathing has been a great advantage to the Chinese braziers, who use quantities for the manufacture of a great variety of implements, such as pots, pans, cymbals, gongs, &c., which previously were made by the more laborious and expensive method of casting. The manufacture of what are commonly known as hubble-bubble pipes is carried on quite extensively here, some of the establishments furnishing employment to something like a hundred operatives. These pipes, as a rule, are made from yellow-metal sheathing, cut with shears into proper shape and size, and the component pieces brazed together. The workman sits on a low stool, before a narrow, wooden trestle or bench, about 3 feet long, having at one end two iron staples or rings projecting above the surface, with another flat staple near the center. All the tools used by the workman have a piece of wood or bamboo, about 2 feet long, affixed to one end, and this passes through the rings or staples mentioned, the handle of the file, shears, or rasp [illegible] by the workman. This arrangement enables the operator [illegible] exerting more pressure or ap-

anvil, with a concavity on its face, and, with a properly-shaped tool, hammering it until the brass has assumed the same shape. All the parts are then adjusted, wired together, and brazed. It is theu scraped and polished. The rough polishing is done by placing in the flat staple a piece of wood, shaped to fit the inside of the pipe, and on this the pipe is placed, and being thus firmly held, the workman, with a suitable tool, cuts away all the inequalities of surface, then files it smooth, and polishes with fine sand, finishing off with a finely-powdered or levigated silicious ash, obtained by burning rice husks.

Gongs and cymbals are made from this sheathing by hammering, the resonance of the instrument being of a higher quality in proportion to the amount of hammering received. Pots and pans are also hammered into proper shape, and a rounded and thickened edge given them by folding the edge over a wire and then soldering it.

MANUFACTURE OF BOOTS AND SHOES.

The use of leather in the manufacture of boots and shoes has of late years largely increased, and the shoe industry has now attained considerable proportions. Not only is the demand for local consumption supplied, but large numbers are made for export to different parts of the world. Shoes are sent to Australia, the Straits Settlements, Saigon, Haiphong, Vancouver's, San Francisco, Panama, and South America.

The principal peculiarity of these shoes is found in the great thickness of the sole. This sole is made either of felt or leather, which, after being first cut into proper shape, is pressed by a simple arrangement. In a piece of hard wood 5 feet long and about 15 inches in diameter, a mortise is cut 5 inches wide and 3 feet long, leaving about a foot of solid timber at each end. The soles are placed in this mortise, and between each is placed a thin piece of plank. Wedges are then driven in at the top until the compression is deemed sufficient. They are then removed from the press and the layers sewed or pegged together.

Leather of Chinese manufacture is preferred, being softer and more porous than that of European or American production. If kept oiled or greased it is very durable, but if blacked in the usual way cracks and breaks badly.

PRESERVING.

Though most of the preserved ginger sold in this market is made in Canton, a considerable quantity, which is steadily increasing, is now prepared in this colony. The process is simple. After first boiling the fresh root until it becomes soft, it is punctured all over with a fork and then boiled in sirup until the proper consistence is obtained, when it is placed in jars for market. Other fruit and vegetables are preserved in substantially the same manner, holes being pricked into them to allow the sirup in which they are boiled to penetrate them in every part.

A favorite preserve is [illegible]

GLASS MAKING.

The Chinese in Hong-Kong manage to turn out a considerable quantity of glassware of various kinds and of fair quality, with the minimum of implements and a plant the most inexpensive. True, the material in general use is old glass remelted, for which expensive furnaces and apparatus are not indispensable. The crucibles used are small, rarely exceeding in capacity 200 pounds. These are set in a furnace stoked from a small opening in the side. About 3 cwt. of coal is used in melting one crucible of glass. The tubes by which the molten glass is collected from the pot, are perceptibly lighter and shorter than those used in America. After being blown, the glass is annealed in a small square pit containing ashes and straw, the latter being speedily converted into ash by contact with the heated glass. The molds used are made of clay and are often very ingeniously devised to meet the varying indications required. When taken from the crucible the operator does not marver the lump of molten glass by rolling on a flat iron slab as is usually done. They have, in fact, no marver's tools or other appliances usually seen in glass-blowing establishments.

A small trowel-shaped tool of iron, clay molds, and a few iron tubes constitute the Chinese glass-blower's whole stock in trade.

The above relates to Chinese glass-blowers alone, of whom there are many in the colony, but there is a large plant for the manufacture of glass, owned by English and foreigners, in Hong-Kong, which has all the modern appliances, but is not now at work.

R. E. WITHERS.

UNITED STATES CONSULATE,
Hong-Kong, April 25, 1887.

IMMIGRATION INTO SOUTHERN BRAZIL.

REPORT OF CONSUL LETCHER.

The province of Rio Grande do Sul, which is the most southern in Brazil, has an area of 118,755 square miles; and is bounded on the west and south by the Argentine Republic and Uruguay or the Banda Oriental, and on the east by the Atlantic Ocean. Although the most southerly, and consequently the most habitable portion of the Empire—owing to its entire freedom from yellow fever, and the scarcity of visits from that other great scourage, cholera—the population in 1886 was estimated at only 899,100. Of these, 30,000 were slaves and 200,000 foreigners. The foreign element is furnished almost wholly by Europe. In the new colonies to the north, northeast, and northwest of Porto Alegre (the capital of the province) there are said to [illegible] Germans. Porto Alegre can be called a German city, [illegible] per cent. are of German [illegible] the

The following tables give the number of immigrants arriving at Rio Janeiro during the years 1882, 1883, 1884, and 1885, their nationality, and their distribution among the different provinces:

Nationality.	1885.	1884.	1883.	1882.
Italians	10,908	5,933	10,698	10,562
Portuguese	7,611	8,683	11,286	9,269
Germans	2,119	1,240	1,690	1,538
Spaniards	815	576	2,343	3,738
Austrians	466	598	249	57
Poles	251	359	.....	.....
French	233	155	152	249
English	90	100	158	239
Swiss	43	70	94	30
Turks	43	.....	.....	.....
North Americans	25	.....	.....	.....
Argentines	24	.....	.....	.....
Russians	24	98	10	19
Swedes	16	.....	.....	.....
Belgians	16	.....	.....	.....
Orientals	4	90	11	10
Other nationalities	39	97	98	134
Totals	22,727	17,999	26,789	25,845

Provinces.	1885.	1884.	1883.	1882.
Sao Paulo	5,163	4,427	5,118	9,713
Rio Grande do Sul	4,643	1,985	4,402	3,549
Minas Geraes	1,434	1,202	987	1,450
Santa Catharina	1,308	6,611	1,595	539
Rio de Janeiro	1,006	875	717	4,223
Parana	429	385	419	333
Espirito Santo	167	33	342	221
Pernambuco	53	10	22	24
Para	26	21	26	22
Bahia	23	11	103	36
Amazonas	19	27	2	.....
Alagoas	.....	11	2	.....
Parahyba	.....	.....	2	10
Maranhão	.....	.....	.....	4
City Rio Janeiro	8,456	2,401	13,052	5,721
Total	22,727	17,999	26,789	25,845

In 1886 this province received 3,524 emigrants—2,527 Italians, 761 Germans, 92 Portuguese, and 144 of other nationalities. Of these, 3,060 settled in the colonies in the north of the province, and 464 in the cities and towns.

INDUCEMENTS TO EMIGRANTS.

As an incentive to immigration, the Brazilian Government holds out or offers to emigrants the following inducements:

(1) Payment in full of their passage from Europe to Brazil to all those proceeding to agricultural settlements as laborers, with or without their services having been previously contracted for. The payment of same will only be made after the emigrant is located on establishments of that nature and of which the proprietors, previous to the departure of the emigrants from Europe, have obtained from the Government the authorization to cause them to come.

(2) Reduced rates of passage [illegible]

of reduced rates will take place as soon as arrangements are made with the transatlantic steamship companies to that effect, and who will then only be able to charge the emigrants the reduced rate fixed for their passage.

(3) The construction of roads, schools, and churches, as well as any other aid or assistance that may be judged necessary for the prosperity and development of colonial settlements.

In addition to the foregoing, the Government furnishes emigrants board and lodging for eight days, and free transportation from the port of their disembarkation to the locality to which they are going.

With the exception of a small number who come to engage in business, or to accept clerkships in business or commercial houses already established, the greater number, if one should judge by appearances, were never burdened with an abundance of this world's goods. A Brazilian steamer arrived a short time since from Rio Janeiro with several hundred Italian emigrants bound for the Italian colonies. On the passage down, thirteen died from small-pox. As dirt and filth are said to be conducive to the spread of that disease, it is a wonder they did not all die. While the vessel was discharging cargo at this port, the women and children (barefooted, bareheaded, ragged, and dirty) swarmed through the streets of the city, begging from door to door, gladly accepting food and cast-off clothing when money was not to be obtained. Owing to their starting empty-handed in their new homes, it usually requires years of hard labor and industry to acquire a small competence, by which time they have become so accustomed to the country and the habits of the people that they are content to remain. Some that are lucky enough to accumulate a small fortune in a short time, return to their native land, but a ten years' residence generally severs all longings for old home associations. There are a number of flourishing river towns and villages in the colonies, which carry on a lucrative trade with the inland settlements, furnishing them with hardware, machinery, groceries, and clothing, in exchange for their corn, wheat, wine, honey, hides, tallow, wool, and fruits. The raising of grapes and honey, and the manufacture of wine, seems to be more successfully conducted in the Italian colonies than in any other portion of the province. The mildness of the climate (snow and ice being unknown) and the fertility of the soil, producing all kinds of cereals, fruits, and vegetables in abundance, render it possible for any one not epicurian in taste or particularly fastidious in his dress to live in the agricultural districts without being compelled to do a great amount of labor. Cattle-raising is the principal industry of the country, but as it requires money and experience to follow that calling, most of the large estancias or ranches are in the hands of natives, whose wealth consists of land, cattle, horses, and sheep. Quite a number of English and German mechanics and engineers find employment in the railroad shops and on the [illegible] and ocean steamers, but they generally come out under [illegible] subject, however, at the ex- [illegible] they desire

their tribal dialects. Although containing about the same area as the United States, Brazil claims only one-fourth as large a population; and while trying to compete with the States in offering inducements to emigrants, and welcoming all classes of European paupers within her boundaries, when it comes to the Chinese she finds she has no spare room. As a rule the German emigrants go to a country, engage in the different mercantile and industrial pursuits, stay in the country, make money, save it all, and thus add to the taxable wealth. The trade of the province, formerly controlled by the English, has of late years gradually passed into the hands of the Germans, where it is liable to stay, as there are no people who can compete with their shoddy goods, Jewish business acumen, and love of the almighty dollar.

RULE LETCHER,
Consul.

UNITED STATES CONSULATE,
Rio Grande do Sul, March 31, 1887.

ANNATTO IN JAMAICA.

REPORT OF CONSUL BEYLARD.

Annatto (*Bixa orellana*) is a native of South America, but it is to be found in the West Indies and nearly all tropical countries. It is a shrub or small tree, branching from the roots, to a height of from 12 to 20 feet; it may be readily trained to a small tree with trunk 6 to 8 inches in diameter, 10 to 20 feet high, and spread of branches 20 to 28 feet. It grows in this island from the sea-level to 3,000 feet above, and seems to flourish best in moist and shady places. There are several species of annatto; of these but two are known in Jamaica, *Bixa orellana*, the most common and valuable kind, and *Bixa alba*, or white annatto, which is occasionally met with. Of the former, there seem to be several varieties, some producing two crops of seeds a year, others flowering and fruiting continously; ordinarily but two crops annually may be counted upon.

The yield of a tree six years of age ranges from 6 to 12 quarts per annum.

The fruit consists of a terminal corymb of ten to twenty miter-shaped two valved capsules, each about 1¾ inches in length by 1 inch broad. In the *Bixa alba* the capsule is nearly round. The capsules are covered with spines, and when ripe open like jaws, each containing from forty to fifty seeds, the size of which is about equal to a grain of barley-corn, and covered with a resinous coat or testa, which constitutes the valuable product of the plant.

The capsules are picked when full, spread out to dry, and when open the seeds are gathered and again dried under cover.

It is essential that the capsules should be gar[illegible]
as the sun and rain [illegible]

Annatto is employed here chiefly for coloring and flavoring food and chocolate and occasionally as a dye for fabrics.

The plant can scarcely be said to be cultivated here, as Jamaicans are prone to leave all things to chance, and seedlings are to be found in nearly every yard and provision ground, which answers the purpose of supplying the wants of the family, and the surplus is disposed of. The natives consider the price (6 cents per quart) too low to warrant them in engaging extensively in its production. I can only account for this in their constitutional objection to any and every form of labor which does not yield a fabulous return.

In starting a plantation the seeds should be planted in nursery-beds, and, when the young plants are about a year old, transplanted to the field and placed at a distance of from 10 to 20 feet one from the other. They bear at the age of three, and continue to do so for twenty or thirty years.

There are various shades of color to be obtained, from orange to dark red and scarlet, and by proper care in the selection of seeds, culture and curing, any desired shade might be produced, and the quality much improved.

I forward herewith specimens of both *orellana* and *alba;* also a photograph of a tree eight years old, the circumference of which is 25 inches, the height 20 feet, and the spread of branches 20 feet.

The amount of annatto exported from Jamaica for the year ending September 30, 1886, was as follows:

To England	pounds..	13,622
To Canada	do....	199
To America	do....	352,798
To France	do....	2,665
Total value		$37,440

LOUIS D. BEYLARD,
Consul.

UNITED STATES CONSULATE,
Kingston, Jamaica, May 15, 1887.

ANNATTO IN GUADELOUPE.

REPORT OF CONSUL BARTLETT.

Annatto grows in all kinds of soil; but, like all other plants, it prefers rich lands. When the groves are exposed to strong winds, the trees are stunted and yield a great deal less. It thrives at Guadeloupe (proper) at an altitude of 500 to 600 meters, but yields less and less as you ascend from 400 meters.

It is not necessary to plow the land. Holes must be dug to plant [illegible] diameter of 50 to 60 centimeters [illegible] they may

them for nearly a year on the whole extent of the plantation. Nurseries are preferable. The seeds are sowed in well-prepared beds, at a distance of about 30 centimeters between each row. The seeds should be perfectly ripe and dry, taken from the pods of the best variety. The seeds taken from dry pods, but fresh, also grow well. These beds should be carefully attended to during several months. When the young plants have reached a height of about 40 to 60 centimeters they may then be placed singly in each hole, and sometimes two, but later on one of these must be pulled up and placed elsewhere; it will surely take root if rainy, otherwise it must be watered.

The soil around the young seedlings should be mellowed and hilled lightly a few days after, in order that weeds should not take possession of the holes and destroy the young plants.

This plant grows very fast and is very rural, requiring little care after the plantation (or grove) has attained a certain size. It blossoms one year after being transplanted, and bears a few pods, but is yet far from having reached its full size, which may be 4 to 5 meters. In a rich land the trees will meet each other at a distance of 4 meters, and will shade the whole ground in four or five years. The ground should be hoed at least two or three times a year, as long as the trees have not obtained their full size.

The crop, of course, depends on the age of the grove, the dimensions of the trees, and their exposed position. In a rich and quiet soil, not exposed to the wind, trees, even younger, yield more than older ones in an unfit soil and constantly exposed to strong breezes. Seasons differ also, and the yield is more or less abundant.

Annatto bears twice a year; the spring blossoms always yield the largest crop. As for the financial result per hectare, only a person well versed in the business could state. Prices are not always regular, but vary, and certain planters' brands are more appreciated than others on the European markets. Annatto, however, yields regular crops, mostly sure, unless a hurricane or gale of wind turns the grove upside down. The trees then, unless they be completely uprooted, soon recover from the effects of such an accident, and very often the following crop is very abundant, owing to the forced pruning of the trees to clear them of the broken limbs.

It would be wise in such cases to take example from nature and systematically prune the trees.

As soon as the pods in the bunches commence drying and opening, these bunches must be cut, by the means of shears or a crooked knife. These bunches are packed in baskets and transported to the shed prepared for that purpose. This is the most tedious work of the crop, for every pod must be picked with the hands; as much as possible the seeds attached to the white film inside should be left untouched. The pods when empty are of no use, except to be added to the manure heap. This work of picking is generally done at the price of 5 centimes per kilogram, by women and children, who often succeed in making a good day's wages.

As for the composition and the making of the coloring pulp, which is the final result of the crop, and of the various mills and implements used for that purpose, as well as

INFORMATION FROM MR. ROLLIN, THE LARGEST ANNATTO PLANTER IN THE COLONY.

One hectare of annatto trees ought to yield, on an average, 1,500 kilograms of green seeds for the two crops, say about 7 casks of merchantable pulp, weighing each from 190 to 200 kilos.

According to altitude, the first and second crops are respectively the most abundant. The largest in the heights are in July and August. In the lower regions, they are in December and January. In general, in the lowlands, the crops of July and August are of no account, unless the land has been irrigated.

Five centimes per kilogram are generally paid for picking the pods from the hills where green annatto is gathered. In the lowlands, the maturity takes place all at once. The pods dry up rapidly and are lighter and more difficult to pick. I have often been obliged to pay 10 centimes per kilo, under such circumstances.

The crop is gathered from the 15th of July to the last of August; on the hills a little sooner, according to the quantity of rain in the lowlands

At this moment annatto is worth 40 to 50 centimes per kilo (the pulp) on the European markets. At these prices I think that the loss must be of about 15 to 25 centimes per kilogram, according to the fertility of the soil and the organization of the plantation and means of manufacturing the pulp.

For my part, I am thoroughly installed; beside, my lands are very fertile and I believe that I shall lose about 10 centimes per kilogram, which, for the extent of my cultures, will amount to about 15,000 to 18,000 francs dead loss.

Unfortunately it is to be feared that this state of things may last several years, the decline in price being caused by overproduction; whereas the mineral pigments keep increasing daily in quantity, in beauty, and, above all, in lower prices.

The director of the Botanical Garden at Basse-Terre informs me that he does not think the annatto tree would flourish in any part of the United States.

There were exported from this colony during the year 1886, 629,718 kilograms of annatto, of which 592,815 kilograms went to France.

CHARLES BARTLETT,
Consul.

UNITED STATES CONSULATE,
Guadeloupe, April 25, 1887.

SPURIOUS AMERICAN GOODS IN SALVADOR.

REPORT OF CONSUL DUPRÉ.

In my dispatch, No. 19, I adverted to the fact that products of American toil, skill, and industry are supplanted in Salvador, and I suppose everywhere in Central America, by base imitations. *Iron* "machetes" are substituted for those of *steel*, as manufactured in Connecticut and New York. The trade-marks of American artisans are stamped or imprinted on the worthless German implements. I am told that 50,000 "machetes" are sold annually in Salvador at an average price of $3.50 each. American osnabergs, sheetings, mus- lins and calicoes are driven out of Central American markets by and trade-marks of the best American mills. India and Egyptian

the deadliest of all these beverages is the "Kentucky whisky," so labeled, but distilled in Germany.

I have seen "Colt's" and "Remington's" repeaters sold here that were never in the United States. I was told that these last were products of that forgotten "Birmingham" *of England*, but these illiterate, untraveled natives demand the cheapest goods, cast-iron *sewing-machines* (German), wares, axes, and beverages, and are supplied with them by Germany. May not the *co-operation* of these American producers send hither an agent selling nothing but American products? Would not such a "wholesale" agency, educating the people, speedily expel fraudulent and worthless goods from Salvador?

L. J. DUPRÉ,
Consul.

UNITED STATES CONSULATE,
San Salvador, Central America, April 13, 1887.

LAWS OF THE MOSQUITO RESERVATION.

REPORT OF CONSUL BROWN.

I submit copies of the laws of the Mosquito Reservation, recently adopted by the executive council of municipal authority, charged with the government of that assigned district of Nicaragua.

By these laws it will be seen that the duty on general merchandise imported into the reserve is increased to 7 per cent. on the cost of such merchandise instead of 5 per cent., as required since August 1, 1885.

One act establishes that port dues shall be collected of all vessels entering the port of Bluefields. It will be recollected that prior to the adoption of this regulation no charges of any kind have been imposed on vessels entering any part of the reservation.

In the act regulating the labor question is a provision limiting to fifteen the number of laborers from abroad that each proprietor of a plantation may employ. This question, by reason of rapid increase of the cultivation industry on Bluefields River, is assuming importance in the reserve.

When the demand for such labor commenced it was supplied by such common laborers as were to be found on the coast. This did not prove to be a satisfactory supply, either in quantity or quality, and could be had only for short terms of service; but during the past year laborers have been brought from the United States, principally from Louisiana and the adjoining States. Nearly every steamer coming from New Orleans during that period has brought to the Bluefields plantations one to three colored laborers from that port, and by one steamer on one occasion eighty laborers were brought to Bluefields.

Another regulation is the act to prevent the importation of dynamite, with an omnibus provision directed against other dangerous explosives.

patient labor of fishing in the lagoon, for which purpose they keep on hand a ready supply of dynamite bombs.

The probable effect of the strict enforcement of these laws is exciting discussion and criticism of the foreign residents of the reservation, many of whom, either as capitalists or as laborers, are directly concerned in the cultivation of the plantations.

FRUIT TRADE.

This is also a subject in which much interest will doubtless be felt by the importers of foreign fruit engaged in that trade at such distributing cities as New Orleans, Baltimore, Philadelphia, New York, and Boston, as there are in each of those ports buyers of the reservation bananas. One Philadelphia firm, fully impressed with the conviction that there is an increasing demand in the United States for the banana as a general article of trade, have recently been directing their energies to encouraging the increase of production of that fruit on the Bluefields River. To that end and as inducement to the producers, they have offered to pay $1 currency of the country per bunch for the fruit in cargoes of 8,000 to 10,000 bunches, saying that as soon as the increased production will justify them they will put in the trade larger steamers, with a carrying capacity of 10,000 bunches.

They claim that the business would be more profitable to them to pay the higher prices for the fruit and employ larger steamers, if assured of a cargo of 8,000 each trip, than it is under the present arrangement.

Although the amount of production is steadily increasing throughout the reservation (and plantations are being made in Nicaragua proper), and the six or seven steamers continue making their usual trips to Bluefields to supply that trade, bearing away cargoes of 3,000 bunches, yet it sometimes happens that vessels depart from there unable to obtain full cargo. In this connection I may say that I am informed that so much has the demand for bananas increased that during the coming season there will be sailing from Boston seventy-five steamers, each of the carrying capacity of 9,000 bunches, and making round voyages of twenty days between that port and all tropical-fruit-producing districts of this coast.

The Bluefields River banana, it is asserted, rates higher in the foreign fruit market in the U nited States than any other imported banana, not alone because of its intrinsic merits as a banana, but because it is transported from the plantations to the market in the United States with less handling than such fruit necessarily is subjected to when shipped from Port Limon and other ports in these waters.

The development of the banana industry in the reserve is now attracting the attention of capitalists in the interior of Nicaragua. [illegible] number of them from Granada, Man- [illegible] despite the

Bluefields River and its branches which in Nicaragua retains its Spanish name of Rio Escondido.

Some months ago it was that people in the interior began to be interested in the glowing reports which reached them reciting the flow of American gold into the reservation, resulting from the cultivation of bananas for export, but it may be noted that such interest did not manifest itself in a practical form until after the publicly announced purpose of the Government of Nicaragua to reclaim "the great interests of the Republic in that region."

President Cardenas, in his last message to the Congress, of January 16, 1887, alluding to matters of the Mosquito, said that those interests had been neglected because of the lack of the means of asserting them; that the limits of the reservation ought to be marked; that a commissioner of Nicaragua ought to be appointed to reside at Bluefields, and that the regulations which should govern the exercise of the rights of sovereignty of the Republic and the municipal rights of the Mosquito Indians in the assigned district should at once be adopted, and that an ordinance embodying those objects would soon be submitted to them for consideration.

The new administration under President Carazo has made but few appointments, and it is not publicly known whether the projected ordinance has been submitted or not to Congress; but it seems to be thoroughly settled belief that it has been decided to appoint General Ysidro Urtecho, formerly gobernador at this port, to be commissioner of Nicaragua in the reservation, and he will perhaps also discharge the duties of gobernador of San Juan del Norte while a residence at Bluefields is being erected for such commissioner.

One of the results of the fruit cultivation in the reservation is the decided increase of its foreign commerce. It is impossible to obtain just what the increase amounts to, as shown by the official returns, because they are so imperfectly kept, but I have heard the opinion expressed that the total of 1886 would show a gain of 40 per cent. over that of 1885.

The greater part of this commerce is had with the United States

WM. A. BROWN,
Consul.

UNITED STATES CONSULATE,
San Juan del Norte, April 17, 1887.

ANNUAL LAWS OF THE MOSQUITO RESERVATION, 1887.

AN ACT to regulate the different licenses and to amend certain river licenses.

Be it enacted by the executive council of the municipal authority, and it is hereby enacted by the authority aforesaid, That upon and after the 1st day of April the following licenses shall be paid:

A first-class license to sell liquors and merchandise, $150 per annum.
A second-class license to sell malt, wines, and merchandise, $100 per annum.
A first-class license to sell merchandise only, $60 per annum.
A second-class dry-goods license, $30 per annum.
A first-class river-shop license to sell malt and merchandise, $100 per
A second-class river-shop license to sell

That all trading vessels on the river shall be in proportion of the shops' license, including all boats of whatever description, in accordance with section 8 of the act.

The local magistrates are directed to be paid out from time to time, whether the stock of the second-class licensed person exceeds the amount of $500; and if the said licensed person evades the law he is liable to fine of $50 and be deprived of the privilege of selling under license in future.

That all special duties remain in full force.

AN ACT entitled "An act to amend section 7 of the act for the better securing of the revenue of the Mosquito Reservation."

Be it ena ted by the executive council of the municipal authority of the government of the Mosquito Reservation, That from and after the passing of this act a duty of 7 per cent. shall be paid instead of 5 per cent.

That no person having a second-class license is allowed to import and sell spirituous liquors under penalty of $50 for the first offense, and for the third confiscation of the liquors.

And it is hereby enacted, That all commission merchants shall take out a regular trading license, either first or second class, and that on no pretense shall goods be consigned to other merchants for the purpose of evading the law, but the said commission merchants shall be deemed traders to all intents and purposes whether they kept a store or not.

AN ACT entitled "An act to suppress drunkenness in the rivers of the reservation."

Be it enacted by the executive council of the municipal authority, and it is hereby enacted by the authority aforesaid, That any person or persons who shall keep a still for the purpose of distilling and selling spiritous liquors in any of the rivers of the Mosquito Reserve without first obtaining permission from the council, that such person or persons found doing such unlawful act shall be liable to a fine of $500 and imprisonment, with confiscation of all apparatus used for such purpose.

It is enacted, That from and after the passing of this act all goods, wares, and merchandise, arriving in steamships for the river shall be warehoused, and if not complied with the captains or agents will be liable to fine of $250.

It is further enacted by the authority aforesaid, That from and after the passing of this act the government will not receive the Columbian half-dollars for more than 40 cents.

Be it enacted by the executive council of the municipal authority for the government of the Mosquito Reservation, That from and after the passing of this act all foreign steamers entering into the port of Bluefields, the captain or agents shall pay port dues of $20 at each time of entry after a complete trip.

All sailing vessels, from 20 tons and upward, entering into the port of Bluefields, shall pay port dues of $10 each, and vessels under 20 tons $5 each.

AN ACT for regulating the labor question.

Be it enacted by the executive council of the municipal authority for the government of the Mosquito Reservation, and it is hereby enacted by the authority aforesaid, That all contracts for labor made in any foreign country must be under the hand and seal of the authority of the country where the contract is made, and, upon arrival the employé must personally appear with such before the magistrate and give bond in the sum of $50 for their good conduct. The magistrate will record said contract, which will be binding in this country.

It is further enacted by the authority aforesaid, That all captains of steam- [illegible] laborers whose names do not appear on [illegible] of the country or port [illegible] and in

of three months, with hard labor, and with forfeiture of the land by the one purchasing.

And it is further enacted by the authority aforesaid, That all leases granted to natives must be continued, and not transferred but to their heirs and assigns * * * and such be considered as entailed property.

Done at the council chamber, Bluefields, March 31, 1887.

AN ACT to prevent the importation of dynamite and other explosives.

Be it enacted by the executive council of the municipal authority for the government of the Mosquito Reservation, and it is hereby enacted by the authority aforesaid, That from and after the passing of this act the free importation of dynamite and other explosives is declared unlawful.

That whosoever shall hereafter import any of the above-mentioned unlawful explosives shall be liable to a fine of $500, or imprisonment for one year with hard labor for the first offense, and banishment for the second.

And it is further enacted, That every person found in possession of any of the above explosives is required at once to deliver up same to the magistrates of the place under the above-mentioned penalty. The local magistrates are ordered and directed to confiscate all such explosives that may hereafter be imported. And it is hereby directed that all duties payable to the government must be paid punctually into the treasury every quarter by all collectors and magistrates.

That it shall be lawful to grant a river-pilot license at $25 per annum.

Done at the council chamber, Bluefields, April 1, 1887.

THE PERUVIAN AMAZONES.*

SO-CALLED PANAMA HATS.

The art of manufacturing hats—called in France "Panama hats," doubtless because to arrive here they sometimes pass by way of the isthmus of that name—has its origin in Guayaquil, and from thence was imported into Peru some fifty years ago. Ten years back it was a flourishing business, but its importance has greatly diminished.

This decline is owing to the progress realized in the European manufacture, which delivers its produce so cheap as to make competition of a hand-made article difficult. In Brazil, where the sale of the "Panama" was once sure and profitable, one can obtain to-day for one franc and a half an Italian straw hat, arranged more or less to the day's fashion, whilst the most ordinary Peruvian hat costs at least 2 francs. It is true that the first is of little duration, but the second is not arranged to modern taste, and the Indian women of the department of Loreto that knit them do not introduce any modification in their traditional shape.

The population of Moyabamba, Sarapoto, and Somas, that lived on the hat industry, has considerably diminished, and in my trip on the borders of the Ucayali and Pachiteu I found quite a number of its ancient inhabitants actually employed in the more lucrative gutta-percha industry.

The preparation of the straw for the manufacture of hats is rather delicate. The first material is obtained from the undeveloped leaves of the *bombonax*, palm-tree. The fibral parts are separated. For this a hook is employed, resembling a hair-pin. The ribbon, separated by the two points, is that used, and all the straws used in the manufacture of a hat are cut in the same way and must have the same width, having to be equally cut by the same instrument. They make balls of these ribbons of straw, and submerge them in boiling water during six hours, exposing them to the dew for whitening, and afterwards dry them in the sun.

The value of the "Panama" increases in proportion to the fineness of the straw. The ordinary hats have three numbers, No. 1 being the least fine. In Mayobamba the following prices per dozen are current: No. 1 [illegible]

for No. 2, four days; and for No. 3, five days. Some workers, practiced from infancy and of exceptional expertness, are able to make a No. 3 hat in a day and a half. The price of the hats in Mayobamba called "fine" vary from 10 to 50 soles, it requiring from one to three months to make such.

The working of hats in the department of Loreto surpasses the figure given in the table of exportation by the Amazon, because Mayobamba exports a great quantity of its products to the Pacific coast. Besides, this city sends every year to Celendin, in the mountains of Peru, prepared straw, ready to be woven, for at least as many as 50,000 hats. The price of this straw varies according to the quality of the hats for which it is intended, and it may be of interest to our manufacturers to know that it is as follows:

Nos. 1 and 2, per piece, 10 centavos (40 francs); No. 3, 20 centavos (80 francs). For the fine hats the price varies from 80 centavos to 1 sole.

The freight expenses on a bale of 400 hats are: From Mayobamba to Yurimaguas, 8 soles; from Yurimaguas to Pará, 5 soles; or, say, 13 soles, or 52 francs, from Mayobamba to the port on the Atlantic.

TOBACCO.

The plantation situated in the neighborhood of the small town of Tarapato, and on the left bank of the Huallaga at 3 leagues distance from the river, produces nearly 5,000 arrobas (125,000 pounds) of tobacco annually.

The current price at Tarapoto is 6.40 soles the 25 pounds, and the expenses from Tarapoto to Pará are 1.85 soles.

The current price at Pará varies, according to quality, from 10,000 to 25,000 reis. The operation is explained by this fact: The purchaser, at Tarapota, is accustomed to pay to the producer, in merchandise, at least a part of the amount owing. The tobacco is sold in bundles, bound in special wrappings of palm leaves. It is strong and odorous; but in the Pará and Manaos markets the "Rio Negro" tobacco is preferred, and is sold at from 60,000 to 70,000 reis the 25 pounds, and above all is preferred to that of the province of Acará, which reaches the price of 100,000 and 120,000 reis.

VEGETABLE IVORY AND SARSAPARILLA.

The original balls of vegetable ivory taken in the forests of the Upper Amazon have the shape and size of an average potato. They are the fruit of the palm tree, and fall of themselves when ripe. They are known in Peru under the denomination of "Cabeza de negro" (negroes' head), from the spherical envelope that contains them, ten to twenty in each. The freight on vegetable ivory is 1 sole per hectoliter from Marañon to Pará. The expense of gathering and conveyance in the woods can be estimated at about 2 soles; the freightage on the hectoliter to Pará varies from 3.33 to 4.44 soles.

The exportation of sarsaparilla has considerably diminished in Peru, on account of falling off of the price in European markets.

In Pará sarsaparilla has been sold up to 40 soles the 25 pounds, and to-day it is not worth more than 9 to 10 soles.

HAND-LABOR—SYSTEM OF TRANSACTIONS.

In the department of Loreto the hand-labor is done by the natives. The whites, Peruvians or foreigners, are in a great minority in the operations they conduct. The natives are divided into a great number of tribes or nations, but they can be classified, in order to study them, in two principal divisions—those who speak the "Quichua" or "Inca" Indian language and those who express themselves in dialects that do not yet figure in any dictionary.

By the first, natives of the provinces nearest Mayobamba, all the agricultural products or manufactures—the hats, the straw, and tobacco—are produced.

[illegible] have so far not contributed anything to commerce, except more or less [illegible] and gutta-percha.

[illegible] utilized within a certain

When for the first time one penetrates into the solitary habitation of a "cauchero" (gutta-percha operator) one is verily surprised to see the stores which he observes of cotton goods, liquors, cutlery, guns, ammunition for hunting, &c. This is the coin with which the laborer is recompensed. On the shores of the Ucayali the Indians of the Panvis race—Conibos, Sipibos, Sheteboo—in communication with the whites for a long time, know the worth of silver, and its value serves in traffic to measure the price of labor, which is not paid in money, but in articles of commerce.

IMPORTS AND EXPORTS.

Under the commercial point of view this section has only very indirectly felt the ills of civil wars that during many years have been so disastrous to commerce on the coast. Finally its articles of importation are not subject to those custom-house tariffs which affect the merchandise disembarked at the ports of Western Peru. The import duties, either to Lima or Brazil, are from 30 to 40 per cent. of the estimated value of the articles, while they are only 7½ per cent. on the invoice prices for goods brought into Peru by the way of the Amazon. The same advantage exists for exports.

Whilst the Brazilian gutta-percha pays an export duty of 23 per cent. of its value, that exported from Peru only pays 4 per cent.

The Iquitos market has been during many years tributary to that of Pará, which, by the capital it controlled, the seniority of its establishments, and its situation as a maritime port, had become the storehouse or general depository for the Amazones. But since some years the increase of the exports from the department of Loreto has given to Iquitos, at least in great part, the means of freeing itself from that tutelage. It seeks its supplies direct from Europe or the United States, that have only to bear one transshipment at Pará or in Manaos before arrival.

From the departmental statistics of imports and their respective figures, the producing or contributing countries are rated in the following order: First, England; second, the United States; third, France; fourth, Germany; and fifth, Portugal.

England has the advantage on account of the low price of her cotton goods, prints, calicoes, and ordinary or common cotton goods: the United States for its flour, lard, sewing-machines, ordinary furniture, petroleum, and hatchets; and France for her articles of fashion, ribbon, silken goods, ready-made apparel, perfumery, wines, and preserves. Germany sends cashmeres, wool and thread, beer, and all classes of implements for fishing, and imitations of the greater part of our (French) articles at very low prices. Quite the contrary to what happens throughout other parts of Peru happens in the district of Loreto; that is to say, French importation surpasses the German. A proof positive of progress is this public demand which requires and looks for the best qualities. Portugal shares with France and the United States the preserve trade. Likewise are imported dried fruits and wines, and, as a ready-made article, a light and comfortable slipper in general use in the Amazones.

Among the articles of considerable sale in the "Montaña" (Peruvian Amazones), and manufactured expressly for it; giving it the shape that habit requires, I will mention the "impulli"—a knife of long blade intended to cut grass—and the "machete" (chopping-block), carried by all who penetrate the woods. Germany imitates these articles, formerly monopolized by the United States.

METHOD OF TRADE.

An "arroba" (Spanish arroba is 25½ pounds) of gutta-percha is worth on the Ucayali, to the workman that furnishes it, 10 soles in merchandise. This system suits the Indian, that fears neither hunger nor cold, that only works in order to obtain the objects he has seen. In his turn the purchaser who seeks for gutta-percha in steamships or in canoes pays (the local dealer), at least in part with merchandise, and this system of direct exchange makes, consequently, an important coasting trade.

If one goes up the current of the rivers until reaching the country of the "Campas" (an Indian tribe), living in a region nearer the Andes, Indians are found that have no idea of the value of coin in purchasing merchandise. Coin has no value for them unless pierced or strung for a necklace.

These "Campas," who for a long time have been considered dangerous and rebellious to civilization, are capable of performing

According to the calculation that he made me, each arroba (25½ pounds) was worth at Iquitos 14 or 15 soles (56 to 60 francs), while he obtained it for 2 reales, that is to say, less than 1 franc, paid to the Campas in merchandise; thus further they took care of his plantations of "yuccas" (an edible root) and bananas, and provided him with an abundance of game.

The distance and expense for transportation is far from offsetting such advantages. It can be said, generally, that for the gutta-percha and other produce of value the regions most distant from civilization are the most profitable for the colonists.

AGRICULTURE.

Although the soil is fertile, even to excess, agriculture hardly exists in the department of Loreto. All activity of colonists is absorbed by the working and commerce of gutta-percha; perhaps there is no more favorable region existing for the cultivation of rice, and, nevertheless, almost the totality of the rice consumed in the country where the land belongs to the first occupant is imported from Brazil. The same with potatoes, that are imported to Iquitos from Havre and Lisbon—a surprising fact, when one considers that Peru is the country where potatoes originated, and if its yield is bad in the Montaña, the neighboring mountain valleys produce them in abundance and of the best possible quality. It is true that in order to obtain them it would be necessary to establish a road, and this appears to be about what the "caucheros" (gutta-percha workers) least think of.

The Peruvian Amazon in reality does not export other agricultural products than the Tarapoto tobacco. The sugar-cane cultivated on some haciendas on the Marañon is converted into "tafia" (sugar-cane rum), which is consumed in the department itself. The plow is not known there. After having burned the forest, the ground is planted or sown without breaking the soil. In the valley of the Ucayali the mud of the river is taken advantage of. When the waters decrease on the river borders corn, onions, and beans are sown, and the crop is harvested long before the rise of the river. Corn ripens at four months; onions, beans, and turnips at three. In the Marañon farms the sugar-cane, of from 3 to 4 meters high, is cut at eight or nine months of age, and the plant endures twelve years. The soil of the Brazilian Amazones is less rich. At Benavides, a town near Pará, where a small French colony exists, the cane plantations must be renewed every three years, the same as on the Pacific coast in the province of Lima.

But that which most attracted my attention in Peru, and in the powerful soil of the Amazones, was the vigor it gives to the vine. The surprise was greater on finding "stocks" on the road, in view of the fact I knew that at Chanchamayo (an elevated mountain valley) plantations of this kind had not prospered. But to-day I am convinced that the failure of the enterprises referred to was owing to the want of proper "budding."

The first "stock" I saw was at Yurimaguas. It formed an immense vine containing more than three hundred bunches of grapes, of medium size, good grain, black, and slightly acid. I found many like it on different farms, especially in Caballa Cocha, on the shores of a small affluent of the Marañon, it being assured to me everywhere that ordinarily they gave three crops a year. In my transit I was unable, of course, to verify the fact; but it is certain that the grape-vine gives in those countries exceptional results. Nevertheless, no one has as yet cultivated it in the department for making wine. All the wine drank at Iquitos is imported from Europe, and is expensive. The same is true with some vegetables, which are brought from the Ucayali, which bring very high prices. Therefore, horticulture and vine-culture would give larger returns in the neighborhood of that city, and more sure perhaps, than even gutta-percha.

OPENING FOR TRADE.

In consequence of its distance from the capital, the lack of means of communi- [illegible] and also in consequence of the desire that the Peruvian [illegible] the colonization of the rich regions of [illegible] commercial point of

Iquitos, with copper cartridges and with movable stem, screw system, and which can be loaded with the ordinary cartridge. Our manufacturers should make a note of this.

CONCLUSIONS.

The Peruvian Amazones should be considered in three phases: (1) As an outlet and producing country; (2) as an objective point of a navigation lens; (3) as a country for colonization.

Under the first phase, from the mere fact that it has not been lacking in progress, notwithstanding a general crisis, it deserves to attract the attention of our merchants, who would extend their trade, and our business people, who ought to take into account actual requirements in order to create articles to satisfy them. It would be advantageous for both to form syndicates with the object of sending to those regions not only travelers to place their merchandise but chemists who should be charged with the mission of studying its natural products.

Professor Agassiz, who crossed some twenty years ago the basin of the Amazones, calculated at four hundred millions the values that were lost to the world from it yearly. It is true that exportation has increased in enormous proportions, but since the voyage of that illustrious sage the naturalists who have crossed the country have been more occupied in determining to what family particular plants may belong than to determine their commercial value. It should be considered that the gutta-percha, quinine, sarsaparilla, copaiba, and other materials actually worked are but a sample of the riches of the Amazones. The valuable woods, the elastic gums (that might replace more or less advantageously those that industry employs to-day), fat oils or essential ones, and medical plants are abundant, without mentioning the famous "curare," made of a number of juices which the Marañon Indians employ for poisons as well as remedies. Others chew a sort of bark that seems to have the same properties as the "coca," which in its recently-discovered uses has made the fortunes of some houses in Lima and Bolivia.

The balsam that is commercially known as "balsam of Peru," does not come from Peru, where they do not know how to work it, but from Central America; nevertheless the "*myroxilum*" that produces it is common in certain forests of the Montaña, especially those along the borders of the Pachitea River. Many other products there are of the kind.

The utility of chemists in the Amazones is incontestible, not alone for shipping houses that might primarily profit, but for general industries to which they might furnish valuable elements. Our commercial people should not yet be satisfied with this study and exposition. The Peruvian Amazone could be chosen in which to establish branch houses, as a wealthy New York house has just done, looking to the appropriation of all important points of South America.

I will now pass to the second phase. The example of the navigation companies actually established prove that a French line from Havre to Iquitos, with stoppages in England and Lisbon, could acquire great profits. The failure of the trial made in late years of a line which only commenced with "Manaos" had its result in special causes, which a new line would know how to avoid. The province of Manaos and the Iquitos merchants would give it, I am led to believe, an important subsidy.

The colonization question is that which leads to greatest controversy. It is true that the merchant who passes his time in his store or under the tent of his steamer and follows rigorous hygienic methods of life can live in the Amazones, and even in Pará, which is the place, as is asserted, the most unhealthy. Numerous French families have become acclimatized in that town, and still better at Manoas and other ports higher up the river. But would it be the same for an agricultural settler, or woodsman, obliged at starting to live from the fruit of his labor?

Some twelve years ago sixty Frenchmen established the colony of Benavides at 2 leagues from Pará. To-day there only remains one-third of them; the remainder could not endure the climate. The white man feels impotent in face of that colossal vegetation, and finds himself consumed, beaten down by the boiling sun, where the Indian works bareheaded and without perspiring.

The Brazilian Amazones is more a country to be worked than to colonize. As one approaches the Andes the temperature diminishes. On the Ucayali one suffers less from heat than from mosquitoes, and on the borders of [illegible]

European settler, who has at least the notion or instinct of economy, which the Indian lacks, has a superiority which in the course of time enables him to appropriate advantages from the labor of the native.

In the Montaña of Peru I have not found a single white man, even those who arrived with no resources, that had not under his orders one or more aborigines.

In conclusion, excellent for improvement, the basin of the Amazones is likewise one of the places of the torrid zones most favorable for colonization.

THE HAWAIIAN ISLANDS.

REPORT OF CONSUL-GENERAL PUTNAM.

The annual report of the collector-general of customs of the Hawaiian Islands for the year terminating December 31, 1886, presents some important and encouraging statistics. In the midst of the general business depression throughout the world, with the uncertanties of results depending upon the continuance of the treaty with the United States, burdened by the disaster of a great fire which consumed one-third of the business and residence portions of the city, the official exhibit gives the most gratifying and encouraging evidence of the steady material prosperity of the islands. These facts are attributable largely to the pluck and energy of the foreign, and especially of the American, elements, which has become an important factor in the present and the germ from which will spring the results of the future of the country.

Not only has the acreage under cultivation been increased, but the yield of the soil has been brought to an average in the chief product, sugar, unsurpassed in any other sugar district in the world. This is to be accounted for by the climate and soil, both so well adapted to the growth of the cane, to the superior cultivation, and the admirable machinery brought into service to exhaust the succulent plant of its juices. The other products of the islands have increased, but as the reports are limited and but little felt abroad it will not be interesting to carry them into detail. The rice crop is progressive, but the local demand, owing to the large Chinese population, leaves but little for export.

In consequence of the contiguity of the islands to the Pacific coast of America and the consequent close alliance of the people of the two sections, almost the entire commercial intercourse of the Kingdom is with the United States. This is evidenced by the fact that 76.22 per cent. of all imports and 99 per cent. of all exports were from and to the United States.

The total value of domestic exports for the year amounted to $10,340,375, an increase over 1885 of $1,381,712. The total quantity of sugar exported during the year was 216,223,615 pounds, valued at $9,775,132, an increase of 44,873,301 pounds over the total export of

[illegible] to $4,877,738, against

commerce of the islands. With Great Britain it was $369,739.80. or 2.41 per cent.; with Germany, $106,672.04, or .70 per cent.; China and Japan, $269,401.22, or 1.76 per cent.; Australia and New Zealand, $132,951.77, or .86 per cent.; all others, $41,508.28, or .27 per cent.

During the year the total tonnage entered at Hawaiian ports in foreign commerce was 222,372 tons, of which 132,660 were American, 43,848 Hawaiian, 35,296 British, 4,278 German, and 6,290 other nationalities.

During the year the tonnage of the island marine has been materially increased, 5 steamers, 2 barks, 4 schooners, and 1 sloop having been added to the Hawaiian register.

The income from customs was the largest ever known.

The exports of rice in the year amounted to 7,338,615 pounds against 7,367,253 in 1885.

The less important productions exported were: molasses, 113,137 gallons; coffee, 5,931 pounds; bananas, 45,862 bunches; wool, 418,784 pounds; sheep-skins, 9,255 pieces; hides, 31,207 pieces; goat-skins, 21,173 pieces; awa root, 20,372 pounds.

With very trifling exceptions these products were all sent to the United States.

J. H. PUTNAM,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Honolulu, May 2, 1887.

MEXICAN TARIFF.

TRANSLATED BY CONSUL-GENERAL SUTTON.

[NOTE.--The first number is the consecutive number after alphabetizing the English translation; the number to the right in parenthesis is the number in the original Spanish.]

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Cotton.		
1 (44)	Braid, cord and tape of cotton with india-rubber, which measure up to 4 centimeters in width, net weight	Kilogram	$1 60
2 (12)	Canvas of cotton linen or hemp, net weight	....do	65
3 (11)	Chemises of cotton cloth, plain or embroidered, for ladies and children, net weight	....do	3 00
4 (35)	Clothing: Ready-made, and their separate parts when they come sewed, of cotton cloth, of all classes and textures, with or without trimmings of lace, strips embroidered in cotton or linen, belts (ribbons) of silk or metal, other than gold or silver, for adults and children, excepting those specified, legal weight	....do	2 50
5 (36)	Of cotton cloth coming in dress patterns, of all classes, excepting those specified, net weight	....do	1 70
6 (13)	Corsets of cotton, linen, or wool, of all classes, with or without small ornaments of silk, net weight	.. .do	1 90
	Cotton cloths:		
7 (37)	Bleached or unbleached, of all classes, of plain texture: Which do not exceed 30 threads in a square of one-half centimeter	Square meter.	09
8 (38)	Which exceed 30 threads in a square of one-half centimeter	....do	11
9 (39)	Printed, dyed, or stamped, of all classes, of plain texture: Which do not exceed 30 threads in a square of one-half centimeter		
10 (40)	Which exceed 30 threads		
11 (41)	Bleached		

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Cotton—Continued.		
	Cotton cloth:		
17 (4)	Articles of, not stated, of all texture, without embroidery, legal weight	Kilogram	$1 60
18 (5)	Art cles of, of all textures, embroidered with another material not gold or silver, legal weight	do	2 25
19 (15)	Curtains of cotton, plain, embroidered, or open-worked	Square meter	20
20 (14)	Dress patterns of cotton cloth partly made, of all classes, with or without trimmings of cotton, for ladies and girls, net weight	Kilogram	1 20
21 (34)	Elastic of cotton and india-rubber, of more than 4 centimeters in width, gross weight	do	60
22 (18)	Flutings (ruchings) of cotton, with or without cotton lace and small silk ornaments, legal weight	do	4 30
23 (19)	Fringe, galoon, passamenterie, edging, tape, cording, and netting, of cotton, linen, or hemp, with or without bugles of glass or metal not gold or silver, net weight	do	2 50
24 (24)	Garters and suspenders of cotton, with or without buckles, legal weight	do	65
	Gloves of cotton or linen, all sizes:		
25 (20)	Unlined, net weight	do	3 70
26 (21)	Lined, net weight	do	1 90
27 (33)	Hair nets of cotton, net weight	do	3 20
28 (26)	Handkerchiefs of cotton, embroidered, with drawn work or trimmed with cotton lace	Each	18
29 (17)	Lace and net of cotton, of any class, and all manufactures of these materials, even when they have some ornament of silk or metal not gold or silver, legal weight	Kilogram	6 00
	Rebozos (long shawls) of cotton and those textures which are printed, embossed, or striped, with designs or work which imitate them (rebozos):		
30 (30)	Up to 26 threads of warp and woof in a square of one-half centimeter	Square meter	1 20
31 (31)	Of more than 26 threads and up to 38 threads of warp and woof in a square of one-half centimeter	do	2 20
32 (32)	Of more than 38 and up to 64 threads of warp and woof in a square of one-half centimeter	do	4 90
	Shawls and similar warps of cotton of all textures, except net (lace):		
33 (27)	With or without fringe or embroidery of cotton or wool, net weight	Kilogram	1 80
34 (28)	With or without embroidery of wool or cotton and fringe of silk and wool or of silk and cotton, net weight	do	2 50
	Shirts, of cotton cloth:		
35 (9)	White and colored, all sizes, net weight	do	1 30
36 (10)	With bosoms, collars, and cuffs of linen, net weight	do	2 00
37 (7)	Socks, stockings, underdrawers, and undershirts, knitted, of cotton, and all kinds of knitted manufactures of cotton, not specified, even when slightly ornamented with silk, net weight	do	1 75
38 (6)	Tassels of cotton, even when their *almas* (inside) are of some other material, net weight	do	70
39 (23)	Thread of cotton, of all classes and colors, including crochet cotton, legal weight	do	1 20
40 (29)	Umbrellas, sunshades, and parasols of cotton	Each	60
41 (8)	Underdrawers of cotton cloth, all sizes, net weight	Kilogram	1 80
42 (16)	Vests and jackets of cotton stockinet, of all sizes, net weight	do	1 10
43 (22)	Weaver's yarn, or yarn cotton, all classes or colors, net weight	do	90
44 (25)	Wicking of cotton, gross weight	do	16
	Linen and hemp.		
	Articles not mentioned, of linen or hempen cloth, of all textures:		
45 (47)	Not embroidered, legal weight	do	1 80
46 (48)	Embroidered with any other material not gold or silver, legal weight	Kilogram	2 50
	Carpets and rugs:		
47 (45)	Of pure hemp, or tow, or any other vegetable fiber, not specified, of plain, crossed, or figured texture, uncut	Square meter	25
48 (46)	Of hemp only, or of any other vegetable fiber, not specified, cut	do	35
	[illegible] ready-made and their separate parts when they come [illegible] lace trimmings, strips of [illegible] adults		3 00

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Linen and hemp—Continued.		
53 (59)	Garters and suspenders of linen or hemp, with or without buckles, legal weight	Kilogram	$0 90
	Goods of linen, of hemp, of hemp-tow or herb-tow, white, unbleached, or colored, of plain texture:		
54 (70)	Having up to 12 threads of warp and woof in a square of one-half centimeter	Square meter	13
55 (71)	Having more than 12 threads of warp and woof in a square of one-half centimeter	do	19
	Goods of linen or hemp, bleached, unbleached, or colored:		
56 (72)	Of all classes of textures, not plain	do	22
57 (73)	Open-worked or embroidered	do	35
58 (61)	Handkerchiefs of linen, embroidered, or with open work, or trimmed with lace	Each	40
59 (53)	Hemp, crude or in fiber, net weight	Kilogram	07
60 (55)	Lace and linen net of any class and every manufacture of these materials, even when they contain some ornament of silk or metal other than gold or silver, legal weight	do	9 00
61 (60)	Linen, crude or in fiber, gross weight	do	03
	Rebozos (long shawls) of linen and those textures which are printed, embossed, or striped with designs or work to imitate them (rebozos):		
62 (64)	Up to 26 threads of warp and woof in a square of one-half centimeter	Square meter	1 95
63 (65)	Of more than 26 and up to 38 threads of warp and woof in a square of one-half centimeter	do	2 90
64 (66)	Of more than 38 and up to 64 threads of warp and woof in a square of one-half centimeter	do	6 15
	Shirts and chemises of linen cloth:		
65 (51)	Not embroidered, of all classes, sizes, and colors, net weight	Kilogram	3 80
66 (52)	Embroidered, of all classes and sizes, net weight	do	7 00
67 (63)	Shirt bosoms of linen, plain or embroidered, net weight	do	6 00
68 (49)	Socks, stockings, underdrawers, and undershirts, of linen stockinet, and all articles of linen stockinet, not specified, even when slightly trimmed with silk, net weight	do	2 00
	Thread (twine):		
69 (57)	Of hemp, crude or in colors, fine or coarse, including such as is half-twisted, of all sizes, in balls or skeins, legal weight	do	13
70 (58)	Of linen or hemp, white or colored, in spools, including carded thread, for rebozos (long shawls), legal weight	do	2 00
71 (62)	Umbrellas, sunshades, and parasols of linen	Each	85
72 (50)	Underdrawers of linen cloth of all sizes, net weight	Kilogram	2 45
73 (56)	Weaver's yarn, or yarn, of linen, hemp, or their tows, of all colors, net weight	do	14
	Wool.		
	Articles not mentioned, of wool, of all textures:		
74 (78)	Not embroidered, legal weight	Kilogram	2 25
75 (79)	Embroidered with any other material than gold or silver	do	3 50
76 (91)	Belting of woolen felt, in pieces without beginning or end, for machinery, when it does not come united to the latter, net weight	do	06
77 (74)	Carpets of coarse frieze, of plain or cross texture, or of beaten wool	Square meter	75
	Carpets and rugs:		
78 (75)	Of short-nap wool, uncut, warp of hemp or any other material	do	1 10
79 (76)	Of woolen shag, cut or velvet finish, with warp of hemp or any other material	do	1 60
80 (77)	Carpets of wool, corded, with hemp or cotton warp	do	90
81 (106)	Clothing, ready-made, and their separate parts when they come sewed, of wool, of all classes of textures, with or without trimmings and linings of any material, excepting those specified, net weight	Kilogram	5 5
82 (83)	Cording of cotton or hemp covered with wool, net weight	do	1 30
83 (82)	Drawers and shirts for under or outer wear, of flannel or any texture analogous to wool, with or without trimmings of silk, net weight	do	2 10
	Dress patterns partly made of wool of all classes:		
84 (84)	With or without embroidery of wool, or of wool and cotton, and with or without trimmings of silk, and cotton, linen, or woolen lace, for ladies and girls, net weight	do	2 50
85 (85)	With borders or embroideries of silk, and with or without ornaments of wool and silk, or of cotton and silk, or of silk, for ladies and girls, net weight		

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Wool—Continued.		
89 (92)	Fringe, galoon, passmenterie, edging (gimp), tape, cording and mesh of wool, with or without bugles of glass or metal not gold or silver, net weight	Kilogram	$3 20
90 (99)	Garters and suspenders of wool, with or without ornaments and buckles, legal weight	do	1 30
	Gloves of wool, of all sizes and colors:		4 50
91 (93)	Unlined, net weight	do	2 00
92 (94)	Lined, net weight	do	3 20
93 (95)	*Gusanillo* (chenille) of wool, with or without metal, not gold or silver, net weight	do	8 00
94 (87)	Lace and wool net, and all manufactures of these materials, even when they have some adornment of silk and metal other than gold or silver, legal weight	do	
	Rebozos (long shawls) of wool and those textures which are printed, embossed, or striped, with designs or work which imitate them (rebozos):		
95 (103)	Up to 26 threads of warp and woof in a square of one-half centimeter	Square meter	1 45
96 (104)	Of more than 26 and up to 38 threads of warp and woof, in a square of one-half centimeter	do	2 20
97 (88)	Ruchings or flutings of wool muslin, with or without woolen lace and small ornaments of silk, legal weight	Kilogram	5 50
98 (108)	Sarapes of wool in imitation of those of Saltillo, worked or stamped	Square meter	8 80
99 (100)	Shawls of various sorts of wool, of all classes of textures not net: With or without embroideries of wool, and with or without fringe of wool, of silk and wool, or of silk and cotton, net weight	Kilogram	3 50
100 (101)	With trimmings, squares or embroideries (edges) of silk and fringe of any material, net weight	do	5 50
101 (81)	Socks, stockings, underdrawers and shirts of woolen stockinet, and all articles of stockinet of wool, or of worsted yarn, not specified, even when they have some trimmings of silk or metal other than gold or silver, net weight	do	2 20
102 (80)	Tassels of wool, even when their *almas* (inside) are of another material, net weight	do	1 30
103 (102)	Umbrellas, sunshades, and parasols	Each	1 00
104 (86)	Vests and jackets of woolen stockinet of all classes, net weight	Kilogram	1 40
	Wool:		
	In the fleece, net weight	do	13
105 (97)	Carded, net weight	do	20
106 (98)	Woolen goods cut in dress patterns, of all classes of textures, excepting those specified, net weight	do	4 00
107 (107)	Woolen goods of all textures, a square meter of which weighs—		
	Up to 100 grams, net weight	do	2 75
108 (109)	More than 100 up to 250 grams, net weight	do	1 50
109 (110)	More than 250 up to 450 grams, net weight	do	3 00
110 (111)	More than 450 up to 600 grams, net weight	do	2 50
11 (112)	More than 600 grams and upwards, net weight	do	2 00
112 (113)	Yarn or thread of wool (Berlin wool), with or without a mixture of metal not gold or silver, net weight	do	1 90
113 (89)	Yarn of wool, of all colors, net weight	do	1 90
114 (96)			
	Silk.		
115 (121)	Clothing, ready made, and their separate parts when they come sewed, of silk, with or without ornaments of any material, not specified, net weight	do	18 00
116 (124)	Goods and all kinds of articles of silk, not specified, even when they have embroideries or trimmings of any material, net weight	do	16 00
117 (116)	Handkerchiefs of silk, of all textures, with or without fringe even when there are other materials on their borders, net weight	do	9 00
	Rebozos (long shawls) of silk, and those textures which are printed, embossed, or striped, with designs or work that imitate them (rebozos):		
118 (119)	Up to 26 threads of warp and woof in a square of one-half	do	16 50
	[illegible] woof in a	do	22 00

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Silk with mixture of other materials.		
	Articles of silk with mixture of cotton, linen, or wool, of all classes and textures:		
125 (125)	With or without embroideries or trimmings of the same materials or of metal not gold or silver, excepting those specified, net weight	Kilogram	$9 00
126 (126)	With bugles or beads of glass or of metal, not gold or silver, excepting those specified, net weight	do	8 00
127 (127)	Articles of silk of all textures, with bugles or beads of glass or of metal not gold or silver, excepting those specified, net weight	do	12 00
128 (142)	Clothing, ready-made, and their separate parts when they come sewed, of all classes and textures, of silk with mixture of cotton, linen or wool with or without trimmings of any material, excepting that specified, net weight	do	12 00
	Cording of hemp:		
129 (130)	Covered with silk and cotton or silk and wool, net weight	do	2 80
130 (131)	Covered with silk, net weight	do	6 00
131 (132)	Corsets of silk with mixture of cotton, linen, or wool, of all sizes, net weight	do	3 80
132 (134)	Covers (linings) of silk with mixture of cotton, linen, or wool, sewed or in the pattern, for umbrellas, sunshades, and parasols, net weight	do	5 50
133 (141)	Elastic of silk and rubber, or of silk and rubber with mixture of cotton, linen or wool, of not more than 4 centimeters in width, gross weight	do	1 10
	Elastic braid, cord, or tape:		
134 (151)	Of cotton and silk or of wool and silk with india-rubber, measuring up to 4 centimeters in width, net weight	do	4 70
135 (152)	Of silk with india-rubber, measuring up to 4 centimeters in width, net weight	do	7 00
136 (144)	Goods, the warp and woof of which are cotton, linen, or wool, and having beside a mixture of silk in strips, squares, flowers, or designs, and even when they have in small quantities a mixture of metal, not gold or silver, net weight	do	3 50
137 (145)	Goods of cotton, linen, or wool, when the warp or woof is of silk only, net weight	do	5 00
138 (146)	Goods of silk when in the warp or woof there is a mixture of cotton linen, or wool, net weight	do	7 50
139 (147)	Goods of silk and cotton, or of silk and wool with mixture of metal not gold or silver, net weight	do	5 60
140 (148)	Goods of silk with mixture of metal not gold or silver, net weight	do	6 60
141 (149)	Goods of silk and cotton, or of silk and wool with mixture of fine metal, net weight	do	10 00
142 (150)	Goods of silk with mixture of fine metal, net weight	do	16 00
143 (140)	Hairnets of silk with mixture of rubber, or of silk with cotton and rubber, net weight	do	4 40
144 (136)	Handkerchiefs of silk with mixture of cotton or wool, of all classes and textures, even when they have on their edges any mixture of metal, not gold or silver, net weight	do	5 50
	Rebozos (long shawls) and those textures which are printed, embossed or striped, with designs or work that imitate them (rebozos):		
145 (137)	Of silk with mixture of cotton, linen, or wool, up to 26 threads of warp and woof in a square of one-half centimeter, net weight	do	9 40
146 (138)	Of silk with mixture of cotton, linen, or wool, of more than 26 and up to 38 threads of warp and woof in a square of one-half centimeter, net weight	do	13 75
147 (139)	Of silk with mixture of cotton, linen, or wool, of more than 38 and up to 64 threads of warp and woof in a square of one-half centimeter, net weight	do	23 20
148 (135)	Rosettes of silk, or of silk and cotton, or silk and wool, with ornaments of metal, not gold or silver, net weight	do	5 00
149 (143)	Sarapes in imitation of those of Saltillo, marked or stamped, of wool with mixture of silk, net weight	do	13 40
150 (129)	Socks, stockings, underdrawers, and undershirts of silk stockinet with mixture of cotton, linen or wool, and all manufactures of this kind not specified, net weight	do	7 00
151 (128)	Tassels of silk and cotton, or silk and wool, even when their *almas* (inside) is of another material, net weight	do	2 80
152 (133)	Yarn or thread of wool and silk with or without metal, not gold or silver, net weight	do	

Nutriti

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Nutritious substances—Continued.		
156 (168)	Beer and cider, in bottles. without allowance for breakage or leakage, net weight	Kilogram....	$0 20
157 (179)	Bitters, without allowance for leakage or breakage, net weight	....do.....	30
	Brandy of all classes:		
158 (156)	In glass vessels, without allowance for leakage or breakage, net weight	....do.....	50
159 (157)	In wooden vessels, without allowance for leakage or drums, net weight	....do.....	40
160 (185)	Butter, net weight	....do.....	25
161 (158)	Caraway seed and anise, net weight	....do.....	10
162 (191)	Cheese of all classes, net weight	....do.....	15
163 (172)	Chocolate, net weight	....do.....	55
164 (179)	Cloves, net weight	....do.....	65
165 (164)	Cocoa of all classes, net weight	....do.....	16
166 (165)	Coffee, net weight	....do.....	10
167 (173)	Confections of all classes, not specified, legal weight	....do.....	1 00
168 (183)	Corn, gross weight	....do.....	01
169 (178)	Crackers of all classes, gross weight	....do.....	15
170 (166)	Cinnamon of all kinds, including cassia, net weight	....do.....	1 00
171 (189)	Fish and cockles of all classes, dry, salt, smoked, pickled, or in brine, legal weight	....do.....	12
172 (181)	Flour of other cereals, gross weight	....do.....	01
	Fruits:		
173 (174)	In brine, gross weight	....do.....	06
174 (175)	Dried, net weight	....do.....	10
175 (176)	In their own juice, in sirup, and in brandy, legal weight	....do.....	50
176 (177)	Fruits and vegetables, fresh, not specified, gross weight	....do.....	01
177 (184)	Lard, net weight	....do.....	20
178 (182)	Liquors of all classes, in glass or wooden vessels, without allowance for leakage, breakage, or drums, net weight	....do.....	25
179 (186)	Molasses and honey, net weight	....do.....	08
180 (161)	Oats, gross weight	.....	01
	Olive oil:		
181 (153)	In jugs or tin cans, without allowance for leakage or breakage, net weight	Kilogram.....	15
182 (154)	In glass vessels, without allowance for leakage or breakage, net weight	....do.....	20
183 (155)	Olives, stuffed (prepared) or in oil, legal weight	....do.....	10
184 (167)	Onions, fresh, gross weight	....do.....	03
185 (188)	Pastes, nutritious, gross weight	....do.....	08
186 (190)	Pepper of all classes, net weight	....do.....	25
187 (187)	Potatoes, gross weight	....do.....	03
188 (171)	Preserves, pickles, mustard, and other prepared sauces, with the exception of those specified, legal weight	....do.....	15
189 (192)	Salt, common or table, gross weight	....do.....	25
190 (193)	Sardines in oil, tomatoes, or butter, legal weight	....do.....	15
191 (163)	Sausages of all kinds, and smoked or salted meats, including ham, net weight	....do.....	50
192 (162)	Sugar, common or refined, gross weight	....do.....	06
193 (194)	Tea, green or black, of all classes, net weight	.....	10
	Vinegar:		
194 (196)	In wooden vessels, without allowance for leakage or breakage, net weight	....do.....	11
195 (197)	In glass vessels, without allowance for leakage or breakage, net weight	....do.....	11
196 (180)	Wheat flour of all classes, net weight	....do.....	05
197 (195)	Wheat and all kinds of grain and seeds not specified, gross weight	....do.....	12
	Wine, red and white:		
198 (198)	In wooden vessels, without allowance for leakage or drums, net weight	....do.....	20
199 (199)	In glass vessels, without allowance for leakage and breakage, net weight	....do.....	
	Stone, earthen, crystal, and crockery ware.		
	...of common glass beads) and imitation pearls, gross	Kilogram.....	1 25
	... and	do.....	03

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Stone, earthen, crystal, and crockery ware—Continued.		
208 (200)	Manufactures of alabaster, marble, or stucco, not specified, gross weight	Kilogram	$0 20
209 (201)	Manufactures of gypsum or clay, not specified, gross weight	do	15
210 (204)	Marble and alabaster, in bulk or flags for floors, which measure up to 40 centimeters square, and smoothed only on one side, gross weight	do	01
211 (214)	Mirrors with or without frames: Up to 30 centimenters on a side, without allowance for breakage, gross weight	do	25
212 (215)	Of more than 30 centimeters on one of their sides, even when the others are less in size, without allowance for breakage, gross weight	do	45
213 (205)	Mosaic work of stone for pavements, gross weight	do	01
214 (208)	Slates and slate pencils, of any material, or their imitations, with or without frames, for writing and drawing, gross weight	do	10
215 (206)	Stones for sharpening, or grindstones, gross weight	do	04
216 (202)	Tile	Thousand	7 25
217 (207)	Whetstones and flint-stones, gross weight	Kilogram	05
218 (217)	Window glasses, whether corrugated or otherwise, without allowance for breakage, gross weight	do	25
	Metals and their manufactures.		
	GOLD, SILVER, AND PLATINA.		
21 (224)	Gold, beaten in leaves, legal weight	Kilogram	15 00
22) (220)	Jewelry and all classes of works of gold or platina, or of both metals, with pearls or precious stones, net weight	Hectogram	5 0
221 (221)	Jewelry and all kinds of works: Of gold or platina or of both metals, without pearls or precious stones, net weight	do	4 00
222 (222)	Of silver or of silver and gold: With pearls or precious stones, net weight	do	3 50
223 (223)	Without pearls or precious stones, net weight	do	2 50
224 (219)	Wire, hollow wire, and other drawn wire goods of silver, gilded or ungilded, net weight	Kllogram	10 00
	IRON AND STEEL.		
225 (246)	Beams, iron, for roofs, provided they cannot be used for any other object in which iron is employed, gross weight	do	01
226 (233)	Chains of iron, the links of which have a diameter not to exceed No. 5, Birmingham measure, gross weight	do	10
227 (242)	Furniture of iron of all classes, with or without marble tops and mirrors, gross weight	do	20
228 (236)	Iron in pigs, filings, or small pieces, gross weight	do	01
229 (237)	Iron in bulk, round bars, plates, large hammers, unwrought pieces of all sizes, and anvils, gross weight	do	05
230 (238)	Iron in sheets, beaten, wrought, cast, including axles, boxes (for wheels), and springs for carriages, gross weight	do	10
231 (239)	Iron corrugated and in tiles, for roofs, gross weight	do	14
232 (231)	Manufactures of iron, steel, or tin, of all classes not specificd, gross weight	do	20
233 (232)	Manufactures of iron or steel only, the weight of which exceeds 20 kilograms, gross weight	do	10
234 (234)	Masks of iron or steel wire, of all classes	Each	45
235 (235)	Nails, brads, screws, bolts, and rivets, of iron, gross weight	Kilogram	10
236 (226)	Needles which do not exceed 5 centimeters in length, gross weight	do	95
237 (227)	Needles which exceed 5 centimeters in length, gross weight	do	35
238 (243)	Pens of steel or other metal not gold or silver	do	95
239 (244)	Scissors, wrought: Up to 14 centimeters, gross weight	do	95
240 (245)	Of more than 14 centimeters, gross weight	do	30
241 (225)	Steel in bulk, excepting bars for mines, net weight	do	05
242 (241)	Tin in sheets of more than 40 centimeters in length and 30 in width and stamped. painted, or japanned, of all dimensions, gross weight	do	07
243 (240)	Tools and instruments of iron, steel, brass, or wood, or composed of these materials, for artisans, gross weight	do	10
244 (228)	Wire, of steel or iron: From No. 26 upward, Birmingham measure, gross weight		
245 (229)	Galvanized or not, excepting those specified		
246 (230)	Covered with cotton		

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Metals and their manufactures—Continued.		
	COPPER AND ITS ALLOYS—continued.		
251 (258)	Furniture of brass of all classes, with or without marble tops or mirrors, gross weight	Kilogram	$0 30
252 (267)	Lead, in bulk, in blocks or sheets, and in munition, gross weight	do	05
253 (250)	Manufactures of copper, brass, and bronze of all classes, not specified, gross weight	do	30
	Manufactures of copper, brass, or any other common metal:		
	Gilded or plated, gross weight	do	1 30
254 (251)	Nickel-plated, not specified, gross weight	do	70
255 (252)	Manufactures of zinc, of all classes, gross weight	do	20
256 (261)	Manufactures of plaque, gross weight	do	1 25
257 (262)	Manufactures of pewter or white metal, gross weight	do	40
258 (263)	Plaque or German silver, in sheets, gross weight	do	20
59 (266)	Powders of any metal for bronzing, gross weight	do	1 30
260 (259)	Tin, block tin and in grain, gross weight	do	10
261 (264)	Tin in sheets, leaves, and other manufactures not specified, gross weight	do	20
262 (265)	Wire of copper or brass, gross weight	do	30
263 (247)	Wire of copper or brass covered with cotton, silk, or other material, gross weight	do	40
264 (248)	Wire, hollow wire, and other drawn wire goods:		
	Of metal, gilded or plated, gross weight	do	2 50
265 (249)	Of yellow metal, not gilded or plated, gross weight	do	1 :0
266 (253)	Wire of white metal, not plated, from number 20 upward, Birmingham measure, gross weight	do	1 00
267 (260)	Zinc in sheets, gross weight	do	07
268 (268)			:0
	Notions.		
	Bags, game, of all classes and sizes, gross weight	do	30
269 (324)	Bellows, hand, for fireplaces, pianos, or other uses, gross weight	do	
270 (301)	Belts of all classes not specified, the buckles of which are not of gold or silver, gross weight	do	50
271 (283)	Belts of silk or of any other material mixed with silk, with or without buckles, not of gold or silver, gross weight	do	2 00
272 (284)	Billiard balls of ivory, gross weight	do	4 00
273 (275)	Billiard cues and their points, gross weight	do	50
274 (325)	Blacking and polish in paste or in liquids for boots, shoes, and harness, gross weight	do	20
275 (274)	Books or note books of slate, gross weight	do	50
276 (311)	Bristles for shoemakers, gross weight	do	10
277 (282)	Brushes and pencils for painters, of all classes, gross weight	do	20
2 8 (278)	Buttons covered or crocheted of any material not containing silk, gross weight	do	30
279 (277)	Buttons of silk, or of silk with mixture of cotton or wool, covered or crocheted, gross weight	do	.0
280 (276)	Canes of all classes, the heads of which are not of gold or silver, gross weight	do	95
281 (272)	Cane for furniture, gross weight	do	10
282 (273)	Cases and work-boxes (for scissors, spools, &c.) of all classes with or without trimmings and ornaments, not gold or silver, gross weight	do	1 10
283 (297)	Chalk (cosmetic) for billiard cues, gross weight	do	30
	Coral, manufactured or unmanufactured, gross weight	do	3 00
2-4 (288)	Curtains, transparent, painted in oil or distemper, gross weight	do	35
2 5 (286)	Feather dusters, gross weight	do	32
286 (287)	Feathers for quill pens and for pillows and cushions, gross weight	do	50
287 (321)	Fireworks, Chinese, gross weight	do	68
288 (320)	Flasks of metal or glass incased in leather, cane, or gutta-percha, gross weight	do	30
289 (285)	Frames for umbrellas, sunshades, and parasols, gross weight	do	65
290 (300)	Horsehair cloth of all classes and colors, gross weight	do	35
	Ink for writing, in ordinary vessels, net weight	do	25
291 (293)	Ivory in bulk or in sheets, gross weight	do	20
292 (326)	Lamp shades with or without frames, gross weight	do	65
293 (327)	Mirrors of all classes, gross weight	do	30
294 (313)		do	25
295 (328)		Each	
		Kilogram	1 25
			20

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Notions—Continued.		
307 (323)	Pencil-sharpeners for slate pencils, gross weight	Kilogram	$0 08
308 (294)	Prints, paintings, engravings, and lithographs of all classes, with or without frames, which are not covered with cloth or leather, gross weight	do	65
309 (302)	Rubber for erasing and mucilage for writing desks, gross weight	do	30
310 (319)	Sand-paper or emery-cloth, gross weight	do	06
311 (304)	Scientific instruments, gross weight	do	01
312 (281)	Sieves and strainers of hair or leather, gross weight	do	20
313 (269)	Spectacle glasses and lenses set in any material other than gold or silver, gross weight	do	1 25
314 (270)	Spectacle glasses, unmounted, classed as numbers 6 and 8, and ordinary lenses of one glass, marked with the numbers 1, 2, and 3, gross weight	do	30
	Sponge:		
315 (291)	Fine, gross weight	do	1 50
316 (292)	Ordinary, gross weight	do	30
317 (296)	Stereoscopes of all classes, gross weight	do	65
318 (289)	Strings of all materials for musical instruments, gross weight	do	45
319 (271)	Straps of all classes for razors and pastes for this purpose, gross weight	do	45
320 (305)	Tackle and cordage of all classes, gross weight	do	13
321 (314)	Tapers (small night lights), gross weight	do	30
322 (318)	Tinsel (leaf brass) and enamel in leaf or pricked, gross weight	do	95
323 (312)	Tooth-picks of all classes, not gold or silver, gross weight	do	30
324 (306)	Toys of all classes and materials, excepting those specified, gross weight	do	45
325 (317)	Wafers of all classes, gross weight	do	75
326 (307)	Wax, sealing, gross weight	do	95
327 (310)	Whips of all classes not having gold or silver butts, gross weight	do	65
328 (315)	Wicks of cotton for lamps and for pocket flint and steel, gross weight	do	30
	Machines and apparatus.		
329 (329)	Apparatus of silk and other materials, not of gum-elastic or gutta-percha, for use in medicine and surgery, legal weight	do	1 00
	Clocks for table or wall:		
330 (332)	With wooden cases, gross weight	do	45
331 (333)	Not specified, nor of gold or silver, gross weight	do	1 25
332 (331)	Hand-mills for all purposes, gross weight	do	15
333 (330)	Sewing-machines, of all classes and their separate parts or pieces for repairs, gross weight	do	05
	Watches:		
334 (338)	Of all classes of metal or other material, not specified	Each	50
	Of gold with or without precious stones:		
335 (334)	Striking	do	14 00
336 (335)	Not striking	do	6 75
	Of silver:		
337 (336)	Striking	do	5 00
338 (337)	Not striking	do	1 30
	Carriages, &c.		
	Carriages of all classes that weigh—		
339 (341)	Up to 100 kilograms, excepting those specified, gross weight	Kilogram	60
340 (342)	More than 100 up to 250 kilograms, net weight	do	55
241 (343)	More than 250 up to 500 kilograms, net weight	do	50
342 (344)	More than 500 up to 750 kilograms, net weight	do	45
343 (345)	More than 750 up to 1,000 kilograms, net weight	do	40
344 (346)	More than 1,000 kilograms, net weight	do	35
345 (347)	Carriages, small, for children, of all classes, net weight	do	30
346 (340)	Carts (two wheels), wagons (four wheels), of all dimensions, gross weight	do	06
347 (348)	Diligences and omnibuses of all classes, net weight	do	10
348 (350)	Shafts (front running gear) for carriages, gross weight	do	60
349 (353)	Velocipedes, gross weight	do	20
350 (349)	Wagons (guayines) of all classes and sizes, net weight	do	20
	Wheels, separate:		
351 (352)	For carriages, gross weight	do	60
352 (351)	For wagons (carts) of all dimensions, gross weight	do	15
353 (339)	Wheelbarrows of one or two wheels and hand-carts, gross weight	do	01
	Arms, powder, and munitions.		

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Arms, powder, and munitions—Continued.		
357 (360)	Foils, with or without hilt, gross weight	Kilogram	$0 50
358 (363)	Pistols, guns, and shooting-canes, of air, of all classes, gross weight	do	70
359 (362)	Powder, not for mines, gross weight	do	1 00
360 (359)	Primers and percussion caps of all kinds of fulminants, not specified, gross weight	do	45
	Side-arms:		25
361 (354)	Without gilded hilt, sheath, or sheath-bands, gross weight	do	1 00
362 (355)	With hilt, sheath, and sheath-bands, gilded or plated, gross weight	do	45
363 (361)	Sword-blades, gross weight	do	
	Wood and its manufactures.		
364 (367)	Box wood, gross weight	Kilogram	01
365 (374)	Corks, plugs, or bungs of wood, gross weight	do	06
366 (369)	Frames and moldings, gilded or not gilded, gross weight	do	45
	Furniture:		
367 (371)	Of all classes of ordinary wood, painted or varnished or not, including furniture of cane or bent wood, with or without marble top or mirrors, gross weight	do	15
368 (372)	Of all classes of fine wood, veneered or solid, and that covered with skin or any goods not containing silk, and with or without marble top or mirrors, gross weight	do	25
369 (373)	Of all classes and materials with inlaid works or ornaments of shell, ivory, tortoise-shell, or metal not gold or silver, and that covered with cloth of silk or cloth containing silk, and with or without marble tops or mirrors, gross weight	do	35
370 (366)	Handles and helves of wood for tools and other purposes, gross weight	do	10
371 (370)	Hubs, posts, and spokes of wood, for carriages, gross weight	do	06
372 (364)	Manufactures of wood not specified, gross weight	do	30
373 (365)	Pails of wood, gross weight	do	10
374 (368)	Wood, fine, sawed in pieces, beams, boards, or planks, gross weight	do	02
	Paper, pasteboard, and their applications.		
375 (375)	Albums, w th or without photographs, with covers and ornaments of all materials not gold or silver, gross weight	Kilograms	1 10
376 (385)	Books and printed music with covers of pasteboard, cloth or leather, gross weight	do	03
377 (384)	Books, bound in velvet, shell, ivory, tortoise shell, gutta-percha, wood, composition, or metal, not gold or silver, gross weight	do	1 20
378 (383)	Books, blank or ruled, with ordinary binding, gross weight	do	95
379 (387)	Brown paper and wrapping paper, gross weight	do	08
380 (379)	Charts, geographical, topographical, and nautical, gross weight	do	01
381 (382)	Documents (forms) of all classes, printed, engraved or lithographed, with spaces for writing on them, gross weight	do	65
382 (378)	Lithographed notices or advertisements on paper or pasteboard, with or without colors, without frames, gross weight	do	20
383 (376)	Manufactures or works of paper or pasteboard, of all classes, not specified, gross weight	do	45
	Paper:		
384 (390)	Engraved or lithographed for envelopes or tickets, gross weight	do	65
385 (392)	Of all classes and colors, not specified, gross weight	do	20
386 (391)	Pitched, tarred, cloth-lined, and impermeable, gross weight	do	07
387 (388)	Sized or unsized, of all classes, excepting that specified, gross weight	do	10
388 (389)	Writing paper of good quality or cheaper grade (*florete o medio florete*) for accounts and letters, of all classes, and that for cigarettes, gross weight	do	32
	Pasteboard:		
389 (380)	Of all thicknesses, beaten or not, excepting that specified, gross weight	do	20
390 (381)	In large sheets, medium sheets, bristol-board, albumenized and porcelain paper and that used for making playing cards, gross weight	do	48
		do	1 05
		do	01

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Skins, &c.—Continued.		
398 (400)	Gaiters: Of leather or cloth, other than silk, with or without elastic and ornaments	Pair	$ 90
399 (401)	Of silk, with or without elastic and ornaments	do	1 25
400 (405)	Gloves, plastrons, and leggings, for fencing	Piece	30
401 (406)	Gloves of skin, of all sizes, plain or embroidered: Unlined, legal weight	Kilogram	4 50
402 (407)	Lined, legal weight	do	2 75
403 (408)	Harnesses for carriages, gross weight	do	1 50
404 (394)	Leather, manufactures of, not specified, gross weight	do	60
405 (410)	Manufactures of skins (furs), such as mufflers, wristlets, muffs, and other ornaments not specified, net weight	do	2 20
406 (393)	Saddles of all classes, with or without ornaments not of gold or silver, net weight	do	2 00
407 (402)	Sandals, hempen, called "alpargatas"	Pair	2 00
408 (413)	Shoes, low: Of leather or material other than silk, with or without ornaments	do	45
409 (414)	Of silk, with or without ornaments	do	80
410 (411)	Skins (fur) of all classes, unprepared, net weight	do	10
411 (395)	Slippers or low shoes of leather or other material which do not contain silk or metal	do	40
412 (404)	Uppers for gaiters, unsoled, of leather or cloth, other than silk, with or without ornaments, net weight	do	3 30
413 (403)	Uppers for slippers, of leather or cloth which do not contain silk or metal, net weight	do	75
414 (412)	Visors of leather, gross weight	Kilogram	30
	Drugs, medicines, and chemicals.		
415 (423)	Acetates of all classes, not specified, legal weight	Kilogram	30
416 (422)	Acetates of lead, copper, alumina, and iron, legal weight	do	08
417 (425)	Acid, acetic, nitric, oxalic, and pyrolignous, legal weight	do	05
418 (426)	Acids: Of all substances, gaseous or liquid, not specified, legal weight	do	20
419 (427)	In crystals or in powder, not specified, legal weight	do	1 00
420 (433)	Alcohol or spirits of wine, net weight	do	70
421 (431)	Alkaloids and their salts, not specified, legal weight	do	15 00
422 (424)	Aloes, socotrine, legal weight	do	30
423 (438)	Ambergris, legal weight	do	16 00
424 (440)	Antimony, metallic, net weight	do	30
425 (442)	Arsenic, metallic, net weight	do	30
426 (447)	Balsams: Compounded, not specified, legal weight	do	30
427 (446)	Natural or liquid, legal weight	do	1 65
428 (466)	Barks, flowers, herbs, leaves, fruits, seeds, and roots, medicinal, gross weight	do	1 10
429 (449)	Bicarbonate of potash or of soda, legal weight	do	20
430 (432)	Camphor, legal weight	do	05
431 (452)	Cantharides (Spanish flies), net weight	do	50
432 (453)	Capsules and pearls, medicinal, of all substances, legal weight	do	2 00
433 (454)	Capsules, empty, for medicinal purposes, net weight	do	1 00
434 (455)	Carbonate of potash, gross weight	Kilogram	80
435 (456)	Castoreum, legal weight	do	05
436 (457)	Catechu or cutch, gross weight	do	4 00
437 (459)	Chloral, hydrate, legal weight	do	10
438 (460)	Chlorate of potash and of soda, legal weight	do	1 50
439 (462)	Chloride of gold, legal weight	do	08
440 (461)	Chloroform, legal weight	do	25 00
441 (465)	Colors, crude or prepared, gross weight	do	1 50
442 (464)	Collodion and its compounds, legal weight	do	10
443 (468)	Creosote, legal weight	do	1 00
444 (458)	Cyanide of potash (common), legal weight	do	1 00
445 (469)	Drugs, medicines, and chemicals not specified, legal weight	do	08
446 (483)	Dye woods, in wood or powder, gross weight	do	75
447 (470)	Elixirs, medicinal, of all substances, legal weight	do	05
448 (471)	Essence or extract of sarsaparilla of whatever compounds, legal weight	do	1 00
449 (472)	Ether of all substances, legal weight	do	30
450 (474)	Extract of logwood, of Brazil wood, and all dye woods, gross weight	do	20
451 (473)	Extracts of all substances for medicinal purposes, legal weight	do	05
452 (475)	Fecula of all materials and dextrine not		
453 (417)	Fish oil of all		

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number,	Rate of duty.
	Drugs, medicines, and chemicals—Continued.		
457 (478)	Gums, resins, and bitumens of all classes, including the gum of benzoes, excepting those specified, gross weight	Kilogram	$0 20
458 (441)	Indigo of all classes, gross weight	do	1 35
459 (505)	Iodides of all substances, gross weight	do	2 00
460 (504)	Iodides of potash, gross weight	do	1 00
461 (503)	Iodine, pure, gross weight	do	1 50
462 (502)	Iodoform, gross weight	do	8 00
463 (434)	Lavender, gross weight	do	06
464 (418)	Linseed oil, nut and castor oil (higuerilla), net weight	do	25
465 (439)	Liquid ammonia and all the salts of ammonia, gross weight	do	01
466 (481)	Liquid ambar, net weight	do	45
467 (482)	Litharge and oxide of lead, net weight	do	15
468 (450)	Medicine chests with flasks, full or empty, net weight	do	45
469 (484)	Metals and metalloids for medicinal purposes, not specified, net weight	do	1 50
470 (416)	Mineral oils, not purified, gross weight	do	01
471 (415)	Mineral oils, purified, net weight	do	10
472 (436)	Musk, legal weight	do	10 00
473 (485)	Naphthaline, legal weight	do	1 30
474 (486)	Nitrate of silver, legal weight	do	8 00
475 (420)	Oils, essential, of orange flowers, geranium, nutmeg, mustard, patchouly, and rose, legal weight	do	5 00
476 (421)	Oils, volatile or essential, not specified, legal weight	do	2 50
477 (487)	Opium, gross weight	do	2 20
478 (488)	Orchil, gross weight	do	05
479 (490)	Paste, lozenges, and jellies, medicinal, of all substances, legal weight	do	20
480 (491)	Pepsin, legal weight	do	3 00
481 (476)	Phosphorus, clear or red, legal weight	do	75
482 (492)	Pills, grains, dragees, comfits, and granules of all substances, legal weight	do	65
483 (494)	Powders, medicinal, of all substances and makes, legal weight	do	33
484 (495)	Prussiate of potash, legal weight	do	08
485 (493)	Pyrolignite of iron and lead, legal weight	do	08
486 (489)	Quinine and its salts, net weight	do	1 00
487 (444)	Rock candy or sugar of milk, gross weight	do	35
488 (443)	Saffron, dry or in oil, net weight	do	4 00
489 (497)	Salicene, net weight	do	1 00
490 (496)	Salts and sulphates of all substances not specified, legal weight	do	15
491 (480)	Sirups, medicinal, of all substances, gross weight	do	50
492 (479)	Soaps, medicinal, including cocoa soap, gross weight	do	08
493 (430)	Spirits of turpentine, gross weight	do	01
494 (435)	Starch, gross weight	do	07
495 (445)	Sulphur, gross weight	do	04
496 (498)	Sulfo-oleina, gross weight	do	10
497 (437)	Tar and pitch (resin), gross weight	do	08
498 (467)	Tartar, cream of, legal weight	do	3 30
499 (499)	Tartar, crude, legal weight	do	6 00
500 (451)	Test cases with chemical reactives, gross weight	do	18
501 (500)	Valerianates of all substances, legal weight	do	50
502 (448)	Varnishes of all classes, legal weight	do	10
503 (428)	Waters (aromatic), compounded, distilled, or alcoholic, for toilet or medicinal uses, legal weight	do	25
504 (429)	Waters, mineral, natural or artificial, legal weight	do	
505 (501)	Wines, medicinal, of all substances, net weight	do	
	Different articles.		
506 (509)	Animals of all classes, prepared for cabinets of natural history, gross weight	do	01
507 (517)	Bands of rubber that do not come united to machinery, forming a part of it, gross weight	do	10
508 (556)	Beaver fur of all classes, net weight	do	3 00
509 (550)	Billiard tables of all materials, not including the cloth, gross weight	do	30
510 (526)	Blubber of sperm whale, gross weight	do	01
511 (532)	Broom corn or guinea corn, gross weight	do	03
	Brooms of heather, of all classes and sizes, gross weight	do	15
		do	01
		do	15
		do	60

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Different articles—Continued.		
522 (528)	Designs, models, molds, and patterns for the arts, gross weight...	Kilogram. ...	$0 01
523 (506)	Fans, ordinary, of straw, pasteboard, or linen, without sticks, gross weight	....do	20
	Fans:		
524 (507)	With sticks of wood, bone, horn, and all those not specified, gross weight	....do	95
525 (508)	With sticks of shell, ivory, or tortoise shell, with or without ornaments	Each	2 50
526 (534)	Felt for hat frames, net weight.....	Kilogram	2 20
	Flowers, artificial, and feathers for ornaments:		
527 (535)	Of all materials not silk, metal, glass, or porcelain, legal weight.	....do	3 00
528 (536)	Of silk, or of silk when mixed with other material, legal weight.	....do	7 00
529 (510)	Frames of cotton goods for bonnets and hats for women and girls, gross weight	....do	25
	Galloons and braids:		
530 (538)	Of plated or gilded metals, up to 15 centimeters in width, gross weight	....do	2 50
531 (539)	Of yellow metal, not gilded, up to 15 centimeters in width, gross weight	....do	1 50
532 (540)	Of silver, pure or alloyed, net weight.....	....do	13 20
533 (541)	Of silver, gilded, pure or alloyed, net weight	....do	15 40
534 (518)	Geldings	Each	40 00
535 (542)	Grease, animal, not specified, gross weight	Kilogram.....	07
536 (558)	Hair, human, manufactured or unmanufactured, net weight	....do	10 00
537 (560)	Hats, of all classes not specified, with trimmings, and with or without ornaments of any material.....	Each	1 00
538 (561)	Hats, of all classes and materials, in patterns (blocked out), and without trimmings.....	....do	50
539 (562)	Hats, of Spanish grass, with or without trimmings, for children ..	....do	20
540 (543)	Ice, gross weight	Kilogram.....	01
541 (537)	Linings (coverings) and foundations, of whatever material, for hats, net weight.....	....do	2 00
542 (513)	Manufactures of amber, sea-foam, jet, agate, tortoise shell, ivory, or shell, not specified, gross weight.....	....do	1 30
543 (515)	Manufactures of all materials with adornments and accessories of gold, silver, or platina, not specified, gross weight	....do	3 60
544 (516)	Manufactures of all classes for artificial flowers, not specified, gross weight	....do	1 70
545 (511)	Manufactures of bone, horn, whalebone, gutta-percha, or celluloid, not specified, gross weight.....	....do	30
546 (514)	Manufactures of cane, reed, straw, pasteboard, or any other analogous material, covered (lined) with cloth or skin, of all classes, with ornaments of metal, not gold or silver, excepting those specified, gross weight.....	....do	1 30
547 (512)	Manufactures of straw or reed, gross weight....	....do	45
548 (559)	Perfumery, not specified, gross weight.....	....do	95
549 (572)	Rubber cloth, suitable for making articles of dress, or for any other analogous use, gross weight.....	....do	80
550 (545)	Rubber for foot wear, all sizes, and in strips for cushions for billiard tables and spun into threads, gross weight.....	....do	48
551 (544)	Rubber, india, in sheets, when it does not come attached to any machinery in convenient form for being used upon it, gross weight	....do	10
552 (546)	Rubber in articles of dress, of all forms and sizes, gross weight ...	....do	1 60
553 (547)	Rubber prepared for dentists, gross weight.....	....do	2 00
554 (553)	Sacerdotal ornaments of silk, or silk with a mixture of cotton or wool, with or without embroideries of metal and galloon, not gold or silver, net weight.....	....do	4 75
555 (554)	Sacerdotal ornaments of silk with mixture of cotton or wool, with embroideries of metal and galloon of silver or plated silver, net weight	....do	8 50
556 (555)	Sacerdotal ornaments of silk, with or without embroideries of metal and galloon of silver or plated silver, net weight	....do	16 00
557 (557)	Skin of the vicugna, rabbit, hare, or other similar, net weight.....	....do	1 60
	Soap:		
558 (548)	Common, not perfumed, gross weight.....	....do	18
559 (549)	Fine, with or without perfume, gross weight	....do	1 25
560 (531)	Sperm, in cakes, net weight.....	....do	40
561 (525)	Statues and busts of all classes and materials, of natural size or larger dimensions, gross weight.....	....do	
562 (533)	Stearine in cakes, net weight.....		
563 (527)	Teeth, artificial, of all materials		

Mexican tariff—Continued.

Numbers.	Articles.	Weight, measure, or number.	Rate of duty.
	Different articles—Continued.		
	Tobacco:	Kilogram.....	$1 37
568 (568)	Made into cigarettes of all classes, legal weight	....do	5 40
569 (569)	Made into cigars, net weight	....do	68
570 (563)	Plug for chewing, net weight	....do	1 37
571 (570)	Smoking, net weight	....do	18
572 (567)	Virginia, in the leaf, net weight	....do	10
573 (520)	Tubing of rubber or gutta-percha of all dimensions, gross weight	....do	50
574 (521)	Wax of all classes, net weight	....do	75
575 (552)	Work partly or wholly finished on canvas of all classes, not specified, net weight		

NEWFOUNDLAND TARIFF, 1887.

TRANSMITTED BY CONSUL MOLLOY.

TABLE OF DUTIES.

Ale, porter, cider and perry	per gallon..	$0 20
Animals, viz:		
Calves, pigs, and sheep	each..	30
Horses, mares, &c	do....	3 00
Apples	per barrel..	40
Apples (dried)	per pound..	02
Bacon, hams, tongues, smoked beef, and sausages	per cwt..	2 50
Beef, pigs' heads, feet, and hocks, salted and cured	per barrel of 200 pounds..	1 00
Biscuit and bread (not including sweet or fancy biscuits)	per cwt..	20
Butter, oleomargarine, and other compounds representing butter	do....	2 00
Casks, empty, second hand, 45 gallons and under	each..	45
Casks, empty, second hand, over 45 gallons	do....	1 45
Cask staves, second hand, manufactured, capable of making casks of 45 gallons and upwards	per 100..	5 75
Cask staves, second hand, manufactured, capable of making casks under 45 gallons	do....	1 40
Cheese	per cwt..	2 50
Chocolate and cocoa	per pound..	06
Cigars, 10 per cent. ad valorem	per M..	4 00
Coffee, green	per pound..	05
Coffee, roasted or ground	do....	07
Coals, imported or brought into the ports of St. John's, Harbor Grace, and Carbonear	per ton..	30
Confectionery, not including confectioners' ornaments	per cwt..	5 50
Feathers and feather beds	per pound..	07
Fish, viz: Codfish and haddock, save as hereinafter exempt	per quintal of 112 lbs..	1 50
Flour	per barrel..	30
Fruit, dried (excepting dried apples), currants, raisins, &c	per pound..	03
Indian meal	per barrel..	25
Jams nnd preserves, 20 per cent ad valorem	per pound..	02
Lumber, 1 inch thick, and so in proportion for any greater thickness	per M..	2 50
Oats	per bushel..	05
Lumber, grooved, tongued, or planed, 1 inch thick, and so in proportion for any greater thickness	per M..	4 00
Molasses	per gallon..	07
Oatmeal	per barrel of 200 pounds..	30
Oil, kerosene	per gallon..	06
Peas	per barrel..	30
Pork	per barrel of 200 pounds..	1 75
Salt, in bulk	per ton..	20
Shingles and laths	per M..	60
Spirits, viz:		
Brandy and other spirits, not herein defined or enumerated, and not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater strength than the strength of proof	per gallon..	2 40
All other spirits of greater strength than 43 per cent. overproof shall be deemed to be undefined spirits, and be subject to duty accordingly	per gallon..	2 40
" " strength of proof by Sykes' hydrometer, and so in proportion for	per gallon..	1 65
	proportion for any	1 80

Tea, 20 per cent. ad valorem	per pound..	$0 06
Timber, including lignum-vitæ	per ton..	60
Tobacco:		
Manufactured, including leaf tobacco, stripped or partly manufactured, 5 per cent. ad valorem..	per pound..	20
Leaf and stems	do....	20
Stems, for snuff.	per cwt..	60
Vegetables, viz:		
Cabbages	per hundred..	2 00
Potatoes	per bushel..	05
Turnips, parsnips, carrots, beets	do....	10
All other, including onions (canned or preserved excepted), 10 per cent. ad valorem.		
Vinegar	per gallon..	15
Wines, viz:		
Champagne	do....	3 00
Claret	do....	40
Hock, Burgundy, and light Rhenish wines	do....	85
Malaga and Montilla, costing at port of shipment 80 cents a gallon, and any other above that price, 12½ per cent. ad valorem	per gallon..	1 00
Malaga and Montilla, costing at port of shipment under 80 cents a gallon	do....	35
Port and Madeira	do....	1 65
Sherry and Manzanilla, 12½ per cent. ad valorem	do....	1 00
Spanish red, Denia, Sicilian, Figueira, red Lisbon, Cape, and Lisbon common	do....	35
All other wines, 12½ per cent. ad valorem	do....	1 10

Ad valorem duties.

	Per cent.
Fresh meat, poultry, eggs, oxen, cows and bulls, tallow, grease, and palm oil	7½
Anchors and chain cables, copper and composition metal for ships, including bars, bolts, sheathing, and nails, of the same materials	10
Bread-bag brin or bagging	10
Canvas, sail cloth, and tarpaulin canvas, for ships' use	10
Cordage, viz.: rope and hemp, coir and manila cables	10
Corks and corkwood	10
Fishing tackle (except fishing tackle for anglers)	10
Hoop iron	10
Iron of all kinds, in bars, bolts, sheets, plates, and pieces (save as hereinafter exempt)	10
Machinery and parts of machinery, including propellers	10
Nails (wrought)	10
Oakum, pitch, tar, resin, and raw turpentine	10
Oranges, lemons, grapes, nuts, limes, and olives	10
Sheet tin, block tin, and solder	10
Worsted and woolen yarn of all kinds	10
Bran, barley, malt, Indian corn, and rice	10
Mast pieces and spars, not manufactured	12½
Medicines	12½
Staves (undressed)	12½
Dories and dory oars	12½
Hay	15
Leather	15
Nails (cut)	15
Oleone oil, beef oil, neutral, lard stock, cotton-seed oil, oil of sesame, and other oils used in the manufacture of oleomargarine or artificial butter	15
Cabinet wares	20
Candles	25
Carriages, wagons, sleighs, and harness	25
Casks in which dry goods are imported, when fit to hold liquid	25
Manufactures of wood (except musical instruments)	25
Staves, manufactured and dressed	25
Stockings, shirts, and drawers (made by hand)	25
Ready-made clothing, viz: coats, jackets, trousers, waistcoats, southwesters, mantles, dresses, cloaks, and sacks	25
Goods, wares, and merchandise not otherwise enumerated, described, or charged with duty, and not otherwise exempt	20

TABLE OF EXEMPTIONS.

The following articles imported into this colony and its dependencies shall be exempt from payment of duties:

Agricultural implements and machinery imported by agricultural societies for the promotion of agriculture.

Arms, clothing, and provisions for Her Majesty's land and sea forces

Articles imported for religious purposes, not intended for sale.

Articles of every description imported for the use of the governor.

Articles for official use of foreign consuls.

Bait.

Bark for tanning [illegible]

Corn for the manufacture of brooms.
Crushing mills for mining purposes.
Donations of clothing specially imported for gratuitous distribution by any charitable society.
Dye stuffs.
Oysters and clams in shell.
Fish of British catch and cure, and oil the produce of such fish.
Fruit, not being canned, bottled, or preserved, and not otherwise enumerated.
Gas-engines when protected by patent.
Hemp, hemp yarn, coir yarn, sisal, manila, flax, and tow.
Hides or pieces of hide not tanned, curried, or dressed.
Household furniture and working tools, and implements used and in the use of persons arriving in this colony.
Junk, old iron, old copper, and old composition metal.
Manures of all kinds.
Materials for sheathing the bottoms of vessels, such as zinc, copper, and composition metal, together with nails and paper or felt which may be used for or under such sheathing when used for sheathing the entire bottom of the vessel in which the same is imported.
Music, written or printed.
Ores and parts of ores used in the manufacture of copper paint.
Passengers' baggage.
Pig-iron, nail strips, whether iron, zinc, or brass, to be used in the manufacture of cut nails in this colony.
Plants, trees and shrubs.
Plows, harrows, reaping, raking, plowing, potato, and seed-sowing machines, to be used in this colony.
Printing paper, printing presses, printing types, and all other printing requisites.
Printed books, pamphlets, newspapers, maps, and charts.
Refuse rice.
Sand.
Scientific instruments and apparatus, including globes when imported for the use of colleges and scientific or literary societies.
Seed for agricultural purposes.
Specimens illustrative of natural history.
Steam-engines, boilers, propellers, water-wheels, and saws, when used in the original construction of steamboats built in this colony and of mills and factories.
Sulphuric acid when used for the manufacture of manures.
Twines to be used in manufacturing nets and netting in this colony.
Unmanufactured wool.
Wheat.
Works of art, namely: engravings, paintings, statuary, not intended for sale.

LOCAL DISTILLATION.

The following duties shall be raised, levied, and collected on the following articles distilled or brewed in this colony, namely:

	Per gallon.
Brandy, not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater strength than the strength of proof	$1 75
Whisky, not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater strength than the strength of proof	1 60
Gin, not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater strength than the strength of proof	1 45
Rum, not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater strength than the strength of proof	1 20
Ale, porter, Bavarian beer, Botanic beer, and all other malt and dextrinous liquors	05

[illegible] drawback allowed upon tobacco manufactured in this [illegible] colony at the rate of fourteen [illegible] such draw-

Resolved, There shall be allowed to any printer a drawback to the amount of any duties that may have been paid on any paper actually printed upon in this colony, upon the production of affidavits satisfactory to the receiver-general, setting forth the amount of duties which have been paid thereon, and that the said paper has been actually and *bona fide* printed upon in this colony.

Resolved, There shall be allowed a drawback upon biscuit manufactured in this colony from flour imported on which duty has been paid at the customs when such biscuit shall be exported from this colony, at the rate of 17 cents per hundredweight of such biscuit exported as aforesaid: *Provided*, That such drawback shall not be allowed upon any quantity of biscuit so exported at any one time less than one hundred bags.

Resolved, The duty hereinbefore provided to be levied upon fish is subject to the following proviso, namely: *Provided*, That the governor may by proclamation published in the Royal Gazette remit as he may deem equitable the whole or any part of the duty imposed on fish imported into this colony or its dependencies from countries making such changes or reductions in their tariff of duties with respect to fish, the produce of fish, or other articles exported from this colony and its dependencies to such countries.

Resolved, It shall not be lawful for any importer of dried fish to warehouse the same in any of the ports of this colony and its dependencies without the payment of the duty hereinbefore provided of $1.50 on every quintal so warehoused, and the provisions of any act of this colony with regard to the warehousing of goods on the first entry thereof, or to the allowance of drawbacks upon exportation, shall not in either case apply or be construed to apply to such fish.

Resolved, That in addition to the duties hereinbefore provided to be levied, collected, and paid on goods, wares, and merchandise hereinafter mentioned imported into this colony and its dependencies from countries the fishermen of which have the privilege of taking fish on all parts of the coast of Newfoundland and its dependencies, and in which countries duties are, or shall hereafter, be levied upon fish and the produce of the fisheries exported from this colony to such countries, the following duties, namely:

Flour	per barrel.	$0 75
Pork	do	75
Butter	per 100 pounds	75
Tobacco	do	5 00
Kerosene oil	per gallon	05
Cor meal	per barrel	52½
Hay	per ton	5 00
Oats	per bushel	10
Potatoes	do	25
Turnips	do	25
Cabbages	per dozen heads	40

Unenumerated vegetables, thirty per cent.

Provided always, That the governor in council may at any time, when it shall be made to appear to be for the interest of this colony, by proclamation, to be published in the Royal Gazette, suspend the operation of this clause for a limited period, the duration of such period to be stated in the said proclamation.

CUSTOM-HOUSE, ST. JOHN'S, *April* 1, 1887.

EXPORTS FROM LYONS.

Exports from Lyons to the United States during the months of April, 1887 and 1886, and for the first four months of the years 1887 and 1886.

Articles.	April, 1887.		April, 1886.	During the first four months of—	
	Value.	Value.		1887.	1886.
		Francs.	*Francs.*	*Francs.*	*Francs.*
Raw silks	$89,643 98	464,476 60	196,221 45	2,806,680 60	1,320,315 30
Organzines silk				5,014 30	
Silk and velvet piece goods and ribbons	358,609 79 32,548 27	1,858,081 80 168,643 90	1,856,304 80 265,188 05	12,316,804 90 516,808 50	12,319,104 05 1,046,770 35
Crapes, laces, gauzes, &c					
Shawls					9,119 55
Silk trimmings				234,345 85	313,175 40
Metallic trimmings and church ornaments	7,488 19	38,798 90	95,666 55		
Silk and cotton gloves				22,772 60	33,270 55
Woolen goods		2,499 00	14,577 15	76,940 90	86,833 15
Cotton goods	482 31	23,985 40	24,231 00	85,690 10	42,050 65
Leather and skins	4,629 18	20,282 05	12,792 50	162,462 20	162,589 65
Dye stuffs	3,914 44	67,495 45	77,391 35		8,467 20
Manufactures of iron, &c	13,026 62		4,968 80	916,219 95	540,538 90
Wines and liquors		303,148 50	139,882 60	94,667 60	78,083 85
Musical instruments	58,507 66		34,164 20	194,789 40	155,704 25
Argols		26,984 75	25,957 20	22,101 95	14,760 50
Pierced cocoons	5,208 06	1,385 25	4,767 00	17,379 60	5,719 85
Macaroni, &c	267 35	388 85	3,197 45	20,042 60	10,936 10
Spectacles, eye glasses, &c	75 05	6,384 75	2,400 25		5,683 65
Weaving utensils	1,232 26		5,683 65	4,878 85	12,065 30
Precious stones		3,690 00	807 50	52,315 50	10,453 05
Rabbit hair	712 17	11,407 90	2,850 50	141,328 45	521,057 75
Watch materials	2,201 72	7,938 45	20,182 85		
Wooden pipes	1,532 12			6,792 70	5,043 95
Waste silk			1,640 60	242,263 55	198,044 75
Spun silk and dyed silk			66,469 90		
Preserved fruits	9,148 45	47,401 30			
Miscellaneous					
Totals	589,227 62	3,052,992 85	2,855,345 35	17,940,300 10	16,699,787 75

Total for the first four months of 1887 ..... $3,462,477 92
Total for the first four months of 1886 ..... 3,223,059 04
Increase for the first four months of 1887 ..... 239,418 88

E. H. BRYAN,
Consul.

UNITED STATES CONSULATE,
Lyons, France, April 30, 1887.

RAILROADS IN SIAM.

FROM MINISTER CHILDS.

Last week His Majesty

about 20 miles in length. Captain Loftus left with Prince Devawongse for England to form a company and secure proper parties and capital to build the road. The tramway in the city will be of great benefit and is a most valuable concession. The interior of Siam once opened up by railroads, a great deal of latent wealth will be developed and they will add largely toward settling up sections that are now lying idle.

JACOB T. CHILDS,
Minister.

UNITED STATES LEGATION,
Bangkok, Siam, May 11, 1887.

NOTES.

Cotton cultivation in Russia.—Minister Lothrop writes as follows:

The Imperial Government is making very strenuous and persistent efforts to promote the cultivation of cotton within its own dominions, with the hope to carry the home production to the point of excluding all foreign-grown cotton.

An article in a late number of the Journal of St. Petersburg, compiled from the Moscow Gazette, may be found interesting in this connection.

It has recalled to me a conversation I had this spring with Lieutenant-General Annenkoff, the able and enterprising soldier who has charge of the construction of the trans-Caspian railway. He assured me that he should open the line to Samarcand on the 15th of November next, and gave me an invitation to attend the formal opening on that day. He said that, within one year he should be able to deliver Central Asia cotton in Moscow at one-half of the present price of cotton there.

You will notice that an increase of the duty on cotton is suggested, and as that falls in with the ruling policy, it is very probable that it will be done.

The Journal supposes that in Central Asia, and also in the trans-Caucasus, the conditions for cotton culture are essentially the same as in the United States. But this is probably not quite accurate.

As I am informed, in most places irrigation will be necessary. And it will be long before the native cultivators can be inspired with American skill and enterprise. At present the native cotton is said to be inferior in the strength and length of its fiber. This may be overcome by the introduction of new varieties. The Government has already brought seed and experts in planting from America. It has recently been stated that there was already a considerable cotton plantation near Merv owned and operated by Americans; but this was afterwards denied, and it was added that a concession of land for that purpose had been refused to a company of Americans. I do not know what the fact is.

The Russian "pood" equals 36 pounds 10 ounces English weight.

[Translation of cutting from the Journal de St. Petersburg of May 29 and June 10, 1887.]

The Gazette de Moscow, praising the fullness of information of the commercial statistics gathered by the ministry of finance, borrows from them details about the quantity of raw cotton imported into Russia during the last five years.

This product, it is well known, is of great importance to us, and takes the lead in our importations.

Below the amount of cotton imported into Russia over the European frontiers is given:

Years.	Quantity.	Value.
	Poods.	*Rubles.*
1882	6,710,200	72,417,000
1883	8,090,293	93,864,000
1884	6,270,243	76,635,557
1885	6,377,834	65,908,460
1886	7,247,651	71,609,127

[illegible] been imported, and over the European [illegible] of 380,434,144

To free our manufacturers from their dependence upon the producers of the other side of the water, and to avoid the obligation of paying dear for a product which could be cultivated in Russia, it is only necessary to encourage its cultivation. That would not, says our cotemporary, be so difficult as one would think, for all the essential conditions for cotton cultivation are united in the south of Russia. The trans-Caucasian country, as well as our possessions in Central Asia, differ in no way as to climate from the United States.

The proof of this is that the best kinds of American cotton are cultivated there with success, and considerable progress has already been made, in spite of the little care given by us to cotton. Thus, only six years ago, but 21 poods of American cotton were exported from Taschkend, whereas last year over 25,000 were gathered.

In the province of Erivan, where a few years since this cultivation was in its infancy, it is now assuming the appearance of a real industry. These examples prove sufficiently that cotton could be cultivated with us on a great scale. Only a little more energy is required and the capital necessary for so vast an enterprise. Without help from the state no result could be reached, because, independently of the necessary works for irrigation of the plantations, the installation of which would be very costly, it is indispensable that a credit should be opened to the planters sufficiently large for their first wants, and notably for the purchase of seed of good quality.

The objections to this project, which would have for basis the impossibility of weighing down the budget with a new expense, are groundless. Without creating new articles of expenditure, the cotton industry itself might be made to pay for the creation and improvement of this branch of agriculture.

The duty on cotton is 45 copeks in gold; this could be raised to a ruble, which would bring in an increase of revenue of about 4 millions a year. This sum should be used only for the development of the cotton industry.

Foreseeing other objections, showing the probable loss is to the consumers, upon whom the additional tax would fall, the Gazette de Moscow affirms that these losses would amount to nothing, and it estimates them at the utmost at scarcely a quarter of a copeck an archine (28 inches) of stuff.

So small a loss would comparatively have no importance in the probable results of this measure in favor of the cultivation of Russian cotton.

The cotton manufacturers of Moscow are already prepared for an increase of the duty on foreign cotton, and they stipulate in their contracts of sale of goods for next autumn the proviso in case of a possible additional tax; there is that much gained.

As to the calculation made by our cotemporary, is he really ignorant of the fact that the increase in the price of an article as regards the consumer never corresponds with the tax levied by the state, and which the manufacturers always know how to at least quadruple?

Silver-crisis bill in Mexico.—Consul-General Sutton writes under date of June 25, 1887:

The following is the English translation of the new law to relieve the mining interests of Mexico, which was passed at the late session of the Congress. It has not yet, I believe, been approved by the President; but as it was passed by a Congress which is strongly administration, it will undoubtedly be signed by him. It is so important, that I anticipate its official publication, and take that of the Mexican Financier of the 4th instant:

ARTICLE 1. From the promulgation of this law, freedom from all federal, local, and municipal taxes, with the exception of the stamp tax, will be granted to all coal mines, petroleum springs, iron and quicksilver mines, as well as their products; to native malleable and cast iron in bars, rods, pigs, plates, and rails; and to native quicksilver, the liquid product of the minerals from which it is extracted.

ART. 2. The interior State duties, portage tax, &c., however denominated, shall not be levied on the movement, within the Republic, of gold or silver ore, bullion or coin, or on the circulation of the other metals and mineral products.

ART. 3. Quicksilver, whatever may be its origin, shall be exempt from any tax however denominated.

ART. 4. Beyond the coinage tax, the mines not excepted in Art[illegible] products shall be subjected to

several State legislatures within the limits prescribed, and in cases pertaining to it by the national Congress, attention being given to the condition of the treasury, and consideration being had for the protection which should be given to the mining industry.

ART. 6. Reduction works and metallurgical (assay) offices of every class, when in operation, shall pay to the State in which they are located, or to the federal district, a single tax, which shall not exceed six per thousand on the value of the estate and machinery.

ART. 7. The federation shall receive, as provided, 25 per cent. of the taxes levied by the several States, in accordance with the previous regulations.

ART. 8. Any other tax, except the stamp tax, however denominated, on the extract, product, or profit of mine or reduction, on the product or profit of mineral establishments, on the capital invested in mines or mills, shares of stock and bonds, or on any kind of metallurgical offices, on transfer deeds to mines and mills, and on all stock representing the same, is positively forbidden by this law.

ART. 9. The states are forbidden to charge any tax for the denouncing, possession, or other formalities or operations necessary for the acquisition of mining properties or reduction works, or for the organization of stock companies, or the transfer or issue of bonds and stock.

ART. 10. The executive is authorized to make contracts, by granting special franchises and ample concessions, without prejudice to the rights of third parties, to companies which guarantee the investment of capital in mining, the extent of territory granted being considered in connection with the amount of capital to be invested, the nature of the mineral, and the conditions of the locality, in conformity with the following rules:

(*a*) The duration of the franchises and special concessions shall in no case exceed ten years.

(*b*) The minimum of capital to be invested in prospecting and operating shall be two hundred thousand dollars within five years.

(*c*) This capital shall be exempt during ten years from all federal tax except the stamp tax.

(*d*) The maximum number of properties which may be granted in ordinary cases shall be twenty, together or separate, the number being determined by the rules and regulations of the respective department of the ministry of public works in proportion to the capital, quality and quantity of mineral, and conditions of the locality, the owners always enjoying the greatest liberty to work on one or all of the properties with not less than twenty operatives.

(*e*) Only in case of discovery or re-establishment of mining districts can the number of claims so conveyed exceed, according to circumstances, the number indicated by one-half.

(*f*) The extent of such properties shall be subject to the requirements of the mining code, except in the case of gold placers, in which case the property shall be considered of irregular yield.

(*g*) Of the twenty claims mentioned in subdivision *d* and the thirty in *e* only ten can be located on one vein in the first case, and fifteen in the second, as the maximum, either continuously or separate, unless there be but one vein in the mining district, in which case the whole number may be located upon it.

(*h*) These properties may be protected by the ministry of public works, in cases seriously contested, during the space of two years—a maximum limit that must not be exceeded.

(*i*) This extraordinary protection can be conceded only once, whatever causes may be alleged, but others can be granted in accordance with the requirements of the mining code now in force; but no protection shall be regarded as a motive for extending the privilege longer than the ten years mentioned in the respective contracts.

(*j*) The ministry of public works will authorize owners of claims, if it may be considered proper to do so, to divide and transfer, with previous consent of the ministry, the concessions contained in the contracts; always provided that the new [illegible] their proportion of the obligations.

[illegible] be subject to the obligations, [illegible] in their

of the freight rates on native products destined for exportation on the following bases:

(*a*) The Executive shall fix in his annual estimate the amount necessary to cover the sum charged by the railroads for services rendered under this head.

(*b*) The ministries of finance and public works shall dictate, two months before the expiration of the fiscal term, the necessary measures whereby exporters may avail themselves of the advantages specified.

(*c*) The exports which shall be entitled to a freight reduction shall be divided into four classes, among which, according to the importance they acquire and the protection they need, the Executive shall locate them every year, publishing, with due notice, the respective classification.

The provisions of this law shall take effect in the different States July 1.

Russian petroleum in Germany.—Consul Fay, of Stettin, writes under date of May 16, 1887, as follows:

The German-Russian Naphtha Company, of Berlin, have purchased a small island near Stettin, and will build thereon large tanks and steam pumps for the purpose of handling and storing Russian petroleum in large quantities. The oil will be conveyed in tank steamers, to be built for that purpose.

The German Government has sanctioned the undertaking, and an extensive force will be employed at once in making the nece sary improvements on the island, whereby the oils may be handled at a very small expense.

It is the intention of this company to force the Russian oil on the German markets by delivering it at a much cheaper price than the American petroleum can be sold for. Although the latter oil is of superior quality and at the present time is sold at a very low price, namely, 18 cents per gallon at retail, it is so considered that, by offering the Russian oil at a low price, it will be readily purchased by the majority of the people. This company also claims that by proper handling and refining the Russian oil can be made as good as the American petroleum, and this they say will be attained.

The different oil importers are not so sanguine of the success of this project, however. True, the cost of the barrels will be saved by the company, but where are the casks to come from in Germany? One large importer who has diligently studied the subject informs me that barrels sufficiently good for holding petroleum cannot be made here for less than $1.75. It is the supposition that American oil casks will be purchased by this company for the purpose of handling their oil. There will be another advantage in using these casks, the oil can be sold for American petroleum. I am indirectly informed that this is now being done at Bremen. Russian oil is being brought to that port, put into American casks, and sold as American petroleum.

As contemplated by this company, a pipe line will be laid from the oil regions to the ports of Batoum and Poti, and from these ports the oil will be conveyed in tank steamers. They are very sanguine of success.

The prevailing opinion among oil-men is that it will be an unsuccessful undertaking, inasmuch as the tank business already established at Lübeck, near Hamburg, is proving unprofitable.

Information has been received at the exchange in Stettin that the Rothschilds of Paris and Frankfort have purchased the entire oil interests in Russia, and will lay pipe lines to the principal ports, and will endeavor to supplant the American oil in Europe. This news, however, is not authentic.

Trade of the United States with Colombia.—Consul Vifquain, of Barranquilla, under date of June 20, 1887, writes as follows:

Colombians will not purchase from American manufacturers, for the good reason that they can purchase the same wares from English manufacturers at 30 or 40 per cent. less. I refer principally to machinery of all descriptions, except mining machinery and pumps, water pipes, railroad iron and material, agricultural implements, tools, &c.

Within the next five years not less than one hundred cities in South America will establish water-works, and all the material for [illegible]

said he, "but these are good enough for all purposes and 35 per cent. cheaper than any I priced in the States. I would prefer to deal with your people, but business is business."

Not a locomotive nor railroad car can I see that is of American make; all are made in England; and yet the owner of the railroad is an American. Not one rail comes from the States; all are English. And yet it is safe to say that within the next twenty-five years not less than fifty thousand miles of railway will be constructed in South America. Let United States manufacturers ponder over this, for, English manufacturers will furnish all this vast material, unless our manufacturers are willing to compete with foreign manufacturers upon the merits of their wares alone.

An English syndicate of iron manufacturers—the same that had operated so extensively in Chili during the last few years—has just purchased a 200-mile railroad concession in this country, and thus the industry of these manufacturers thrives; a market is made for their goods by their intelligent business methods. Why cannot American manufacturers do the same? And it might be as well to remember that if English capital controls the railroad system of this continent, as it is in a fair way of doing, that the same capital will control all the commercial and industrial avenues of this vast and extremely rich country—second, in fact, to no other land in the world in natural resources of all sorts.

Indigo trade in San Salvador.—Consul Du Pré writes, under date of June 24, 1887:

The quantity of indigo produced annually in Salvador varies from 9,000 to 15,000 bales of 150 pounds each. Unlike most other products of the country, only one crop is produced each year and a smaller second crop from the same seeding. If locusts, now ravaging narrow districts, do not lessen the present early and promising yield, it will surpass in quantity and value, for each pound, that of any former year, and the product will be 15,000 bales. The crop of the current year is quite a month and a half earlier than those of recent preceding years, and therefore the second crop that springs up, after the first is taken from the fields, will be much greater than usual.

Indigo seeds, very much like those of mustard, are somewhat larger. They are sowed broadcast, like wheat and oats, and plowed in. Every seed germinates twice, and thus the two annual crops. Prices fluctuate greatly and without apparent cause. The natives are capricious in their demands and fancies. There are no bulls or bears in marts of Salvador. The crop as prepared for market is graded, like cotton and wheat in the United States, and the numbers "6," "7," "8," and "9" on the bales define the class or grade to which the bale belongs. The last of the figures designates the best and the first the lowest grade. Indigo of the best quality, No. 9, is worth now about $1, while the lowest grade, No. 6, is sold at 30 and 35 cents a pound; but prices fluctuate greatly and rapidly. Buyers who purchased here last year, paying as much as $1.20 for the best indigo in local currency (Peruvian "pesos"), lost heavily.

The absolute cost of production here, in the local currency, is 65 cents a pound, while in India, where the English have introduced labor-saving machinery, the cost is 25 cents in English money. Here the indigo is cut with "machetes," instead of reapers. It is very much like oats in the fields, and this method of mowing is tedious and laborious. When cut the indigo is soaked in vats, "puddled," boiled, strained, and dried, and all this by the simplest means and all by manual labor. The natives convey the indigo to the market towns in packs on their backs. Samples are spread on mats, beside which the farmer sits awaiting customers, and these are attracted from all lands by the annually recurring indigo fairs of Salvador. These market periods in each city commonly last from eight to fifteen days. The special saint of each of these indigo markets is specially invoked during the continuance of the sales, and thus the priests and churches share in the profits incident to these gatherings of the people.

United States should know that the first great indigo the next, when the first closes, at attended by great

States, it is thought that one-sixth of the whole crop of 1887 will be taken by New York and Boston and by cotton-mill owners of the South. The lower grades of indigo have hitherto been sought here, used in dyeing coarse and strong cotton fabrics used by laborers in the South and West; but the silk and fine cloth manufacturers of Eastern States can secure as good indigo in Salvador as in Bengal, whence the silk factories of France are supplied.

There is unhappily for Salvador an export duty of $3.37 on each bale of indigo of 150 pounds.

Manufacture of potato starch and flour in Germany.—Vice-Consul-General Versen writes, under date of June 11, 1887, as follows:

Export of potato flour and starch during the year 1886, *via Hamburg.*

[In 100 kilograms (2.2 cwt.)]

Destination.	Quantity.	Destination.	Quantity.
Destination unknown	291,593	Sweden	2,646
Great Britain	48,337	Belgium	1,436
Denmark	22,537	Russia	1,416
Italy	12,268	United States	393
Switzerland	11,908		
Netherlands	6,784	Total exports 1886	415,686
Spain	5,572	Total exports 1885	327,576
Norway	4,529	Total imports 1886	9,947
France	4,040	Total imports 1885	12,668

Largest importers in 1886.

Austria	1,557
Great Britain	1,405
United States	470
Netherlands	409
Switzerland	83

Prices for starch and flour are stated to have been very low and hardly profitable in recent years, varying from 16 marks to 19.25 per 100 kilograms.

A Berlin firm, Albert Fesca & Co., who in former years were engaged in the construction of potato-starch factories, wrote to this office that they had abandoned that business as unprofitable.

The average price of first-class flour at present is stated at 17 marks per 100 kilograms.

Average prices of potatoes per 1,000 kilograms, without sack, at Berlin in 1886, 20.53 marks; Magdeburg (a principal district for the manufacture and trade of potato starch), 18.67 marks; Stettin, 17.83 marks.

KIND OF POTATOES USED.

For good potatoes in a fully ripened condition the following average composition is assumed:

	Per cent.
Water	72
Gums	
Salts	4
Juice	76
Albumen	1
Cellulose	2
Starch flour	21
Dry substance	24

Of which 23 per cent is insoluble.

	Per cent.
Gum	0.02
Asparagine	0.06
Extractive substances	0.92
Salts	0.81
Chloride of potassium	0.18
Free native acid	0.04
Water	66.87

Potato starch as a commodity in trade is a dry fine powder, or it appears in lumps intermingled with powder, or as so-called "green starch," in moist or wet condition. The same possesses a slight shade of yellow and a peculiar smell and taste suggestive of that of potatoes, caused by a volatile oil.

For starching and finishing purposes potato starch as a rule is not used, partly on account of its yellow color. It serves, however, as glue in stuff-weaving mills, as a medium of color thickening in printing stuffs, in confectionery, baking, and cooking, and in large quantities for the manufacture of dextrine, starch sirup, and starch sugar. This kind of starch consists of the largest grains, which under the microscope appear ovular, with hilum at the pointed end, and shows circular stripes as a sign of stratified structure.

Large quantities of potato starch are manufactured also in the provinces of Silesia; less in Pomerania and Posen.

Proportion of raw material to product.

The German manufacturers, as I learn through the United States consular agent, Mr. Weichsel, use about 1,200 kilograms of potatoes to make 100 kilograms of flour (first quality).

The cost of reducing potatoes to flour, inclusive of drying, making up, &c., varies between 8.50 and 10 marks per 1,200 kilograms of potatoes, including all manufacturing expenses.

Besides the first-class flour, second and third class qualities are manufactured at the close of the season from the refuse of the first process. These secondary products are, of course, of an inferior quality, and sell at lower rates, but the net proceeds therefrom are not included in the above calculations.

Cost of a potato-starch factory, working 60,000 kilograms potatoes in twenty-two hours a day, would amount to about 266,400 marks (according to an approximate itemized estimate of Messrs. C. Reudolf & Co., Neustadt-Magdeburg Machine Works), viz:

Capital stock.

	Marks.
Premises, buildings, &c.	95,000
Machinery	85,000
Working capital	50,000
Total	230,000

Charges.

Interest for 230,000 marks at the rate of 4½ per cent	10,350
Sinking fund for building, 2 per cent	1,900
Sinking fund for machinery, 5 per cent	4,250
Potatoes, 170 × 60,000 = 10,200,000, .130 marks each	183,600
Pit coal, 170 × 125 cwt. = 21,250 cwt., .85 mark each	18,065
Oil, candles, 180 days × 10 marks	1,800
Sacks, 20,910, each .50 mark	10,455

Salaries:	Marks.
	6,000
	3,000

	Marks.
Wages—30 men, 2 marks each; 6 boys, 1 mark each; 170 days	11,220
Postage and stationery	1,000
Traveling	1,000
Taxes, imports, fire insurance, and insurance of laborers against illness and accidents	1,200
Horse, carriage	2,000
Other deficiencies	2,760
Total	266,400

Proceeds.

Seventeen per cent. finest flour, first quality; 2½ per cent. starch, second quality; 1 per cent. starch, third quality; pulp being used for food or eventual manufacture of paper.

	Marks.
10,200,000 kilograms × 17 = 17,340 sacks of starch, first quality, each 15.5 marks	268,770
10,200,000 kilograms × 2½ = 2,550 sacks of starch, second quality, each 14 marks	35,700
10,200,000 kilograms × 1 = 1,020 sacks of starch, third quality, each 11.50	11,730
10,000,000 kilograms of pulp, .10 mark per kilogram	10,000
	326,200
Less total expenses	266,400
Net proceeds	59,800

Profit: $\frac{59,800 \times 100}{230,000} = 36$ per cent.

Manufacture of potato flour and "Kartoffel-Schnapps" in Germany.—Consul-General Mueller, under date of April 25, 1887, sends the following:

Germany, with a population of 47,000,000, raises a quantity of potatoes far beyond its wants as an article of food. Its large portion of surplus produce is being distilled into spirits known as *Kraftmehl-Schnapps*. The potato distilleries occupy a prominent and important place in the constellation of the national industries, and are encouraged and assisted by the allowance of great export privileges. The smaller portion of the surplus is reduced to flour or potato meal. Prices of potatoes are low, and producers complain of the unprofitableness of the potato culture. Table potatoes of first quality are being sold at an average price of 2½ marks up to 3 marks per 100 kilograms, or 220 pounds. The average price of inferior qualities, to be used for distilling and flour making, is 2 marks per 100 kilograms (50 cents), or 12½ cents for an American bushel of 50 pounds weight.

Potato flour (*Kraftmehl*) is produced at a large rate; its production has considerably increased during the last decade, owing to its use for multifarious mechanical purposes heretofore unknown. It is used in considerable quantities by sausage makers, bakers, confectioners; also for cooking and powdering purposes. Textile and weaving establishments manufacturing "zanella," cotton prints, and other fabrics of silk and cotton use it to size and strengthen the threads in the woof and to give it a glossy appearance. Its use in large quantities for the manufacture of starch and potato sugar and white sirup is generally known.

The establishments manufacturing alizarine and aniline are also using an extract from potato flour called "dextrine."

The quantity of potato flour annually produced, imported, or exported is not to be ascertained, for the reason that the official statistics fail to give a separate account thereof, but mention *Kraftmehl* only in combination with starch, arrowroot, and powder.

The import duty imposed upon potato flour is 9 marks per 100 [illegible] just about one-half of the [illegible]

In view of the facts stated, I have come to the conclusion that there is no opportunity for a profitable export of American potato flour to this country; the comparatively low price of the raw material and the high import duty (to say nothing of the costs of packing and of shipment and of the difference in wages for labor) preclude any such idea. I do believe, however, that American growers of potatoes and manufacturers of potato flour are fully capacitated to supply the American market with potato products and potato-flour manufactures against any foreign competitors.

Manufacture of alcohol from sweet potatoes.—Consul Dabney, of Fayal, Azores, writes under date of April 30, 1887, as follows:

Besides the distillery at the island of Terceira, there are two very large ones at the island of Saint Michael's; the larger of which, I have been told, can dispose of sixty tons of potatoes per diem. The machinery is German in these three distilleries (the only ones of the kind in the Azores), and the engineers German and French.

The potato in use is a large, round one, called here the Demerara potato. I have also heard that the business has been overdone.

Duty on petroleum-barrels in Germany.—Consul Fox, of Brunswick, transmits the following:

It was reported several weeks since that the federal council would at an early day take up the matter of the duty upon petroleum-barrels. The necessity for the removal of the duty is apparent. At the time of its introduction, November, 1885, an empty petroleum-barrel was valued at 4.50 marks ($1.07), while the price to-day is 3.40 marks (80 cents); from which 85 pfennigs (20 cents) per barrel, customs charges for drawback certificate, &c., is deducted, leaving 2.55 marks (60 cents) as actual value. The cooper trade is therefore not only not benefited by the arrangement, but really suffers therefrom. The Imperial revenue from the duty collected upon empty petroleum-barrels in 1886 hardly amounted to 300,000 marks, paid principally by smaller dealers, who were unaware that the duty would be refunded if the barrels were exported. The regulation as it stands affects chiefly the importers of petroleum, who formerly did not export the empty barrels, and now are unable to do so.

The moment the duty was established the American refiners joined together, and since then they buy the empty barrels from certain German firms only, and in consequence every German dealer is forced to sell to these firms at their prices. America, and not Germany, has the benefit, since the barrels must be exported, and America will continue to have it as long as the duty upon empty petroleum-barrels remains. (Magdeburger Zeitung, June 21, 1887.)

Belgian import duties on coffee and cattle and meat.—Vice and Deputy Consul Stein, of Brussels, reports, under date of 5th of July, 1887, as follows:

The following law, reducing import duty on coffee, was published in the Belgian official journal on the 1st instant: Green coffee, 10 francs per 100 kilograms. Roasted coffee, 13 francs per 100 kilograms. This law will be obligatory from July 1, 1887.

The same journal promulgated on the 1st instant the following import duties on cattle and meat entering Belgium:

ARTICLE 1. Bulls and bullocks, .04 franc; oxen, steers, and calves, .05 franc; cows and heifers, 0.3 franc per kilogram, live weight; sheep, 2.50 francs; lambs, 1 franc; per head; fresh meat, whole and half animals, .15 franc per kilogram. Other meat and game, .30 franc per kilogram. From the 1st of January fresh meat will not be permitted to enter into Belgium, excepting whole animals, half or fore-quarters of animals, and only on conditions that the lungs are attached.

ART. 2. The Government is authorized to permit the free admission into Belgium of foreign cattle sent to Belgian fairs and markets, and intended for re-exportation, determined by a royal decree.

July, 1887.

are worked only once in three years. The salt mines return 1,000 tomauns, or $1,500 yearly. Marble beds and large deposits of coal, iron, copper, and lead exist, but have not yet been developed. The principal products are tobacco, cotton, opium, silk, corn, and fruit. The amount realized by sale of last year's crop was:

Product.	Amount.		Value.	
	Kharars.	*Pounds.*	*Tomauns.*	
Tobacco	8,000	5,328,000	6,000	$90,000
Cotton	3,000	1,998,000	6,000	90,000
Opium	12	7,992	9,000	13,500
Silk	20	13,320	15,000	22,500
Dried fruit	.....	.....	17,000	25,300
Corn	40,000	26,640,000	200,000	300,000
Other products	.....	.....	12,000	18,000

During the past year one-quarter of the tobacco was exported to Turkey, one-half of the opium to China, and one-third of the cotton and all the dried fruit to Russia.

Salt crop of 1887.—Consul Hance, Turk's Islands, under date of June 30, 1887, writes as follows:

As at least one-half of the salt produced within this consular district is exported to the United States, it is a matter of some importance to dealers in the United States to be informed of the condition of the crop now gathering, and of the prices likely to be charged within the year.

During the six years from 1880 to 1885 there was an average annual product of 1,523,263 bushels. That may be considered a fair yield, and one justifying the merchants here in charging 9 cents per bushel for fishery and 7 cents per bushel for coarse salt, deriving a reasonable profit on the capital invested.

In 1885 the amount obtained was considerably above the average, being 1,928,220 bushels. Last year, owing to the heavy fall of rain, the amount was below the average, being only 1,141,374 bushels. However, as 450,000 bushels remained over from the previous year, unsold, there was an actual shipment of an amount equal to the average yield from 1880 to 1885.

The prospect for the current year is not bright. In former years, in the beginning of the season (usually the latter part of April), the stock carried over was sufficient to supply any pressing demands in case of a short crop. The 450,000 bushels remaining over from the crop of 1885 was sufficient to satisfy the requirements in May, 1886, when heavy rainfalls prevented the raking.

In the beginning of the current year, however, only 50,000 bushels remained on hand. When the time for the first raking arrived an the process of crystallization had made satisfactory progress, there was a fall of 3.44 inches at Grand Turk, of 1.49 inches at Salt Cay, and 1.69 inches at Cockburn Harbor. At the first-named place the work of gathering ceased temporarily, and it was much impeded at Salt Cay and Cockburn Harbor. A comparison of the rainfall in May, 1885, and May, 1887, will show how effectually the work this year has been retarded:

Ports.	1885.	1887.
	Inch.	*Inches.*
Grand Turk	.65	4.85
Salt Cay	.20	2.39
Cockburn Harbor	.80	2.30

At Grand Turk, in the middle of June, so much progress had again been made that about 110,000 bushels could be gathered. This is one-third of the crop usually obtained at that time of the year. Then, unfortunately, the hopes of the merchants were again dashed. For the last fortnight it has

more salt has been gathered, so that, at both these places, the quantity already secured is not very much below the average for this time of the year. Still, the probability is that the crop will be a short one.

At these three ports about 600,000 bushels have been gathered up to this time, and of this quantity about 130,000 bushels have been shipped, leaving on hand—

	Bushels.
At Grand Turk	70,000
At Salt Cay	160,000
At Cockburn Harbor	240,000
Total	470,000

There are two grades of salt made in this consular district, viz, fishery and coarse salt. At the close of the season last year, on account of the very small stock on hand, prices advanced to 15 cents per bushel for fishery and 13 cents per bushel for coarse salt. As soon as the raking began this year the prices were reduced to 10 cents and 7½ cents, respectively, per bushel. Now, owing to the recent rain, holders are considering the advisability of advancing the price for coarse salt to 8 cents per bushel, and this will probably be the rate until more salt is gathered.

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FROM THE

CONSULS OF THE UNITED STATES.

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WEIGHTS, MEASURES, AND CURRENCY MENTIONED IN THESE REPORTS.

Name.	Country.	United States equivalent.
Caballaria	Honduras	33⅓ acres.
Franc	France	$0.193
Hectoliter		26.418 gallons.
Juchart	Switzerland	0.889 acres.
Kilogram		2.204 lbs.
Liter		1.057 quarts.
Meter		39.37 inches.
Meter centner		110 lbs.
Milreis (1,000 reis)	Brazil	$0.546
Quintal	Salvador	100 lbs.
Vara	Honduras	32.874 inches.

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EUROPE.

SWITZERLAND.

GENEVA.

Report of Consul Adams on trade and commerce of Geneva in 1886.

In several important particulars the commerce of the district during 1836 shows an improvement upon the year preceding. The harvests have all been well up to the recent average, which has been relatively high, and the most valuable product, the yield of the vineyards in the basin of Lake Geneva, has been wholly exceptional both in quantity and quality. Moreover, fine weather during the summer months and some change in the curious caprices of foreign travel brought back to this part of Switzerland, which had been comparatively deserted for a number of years, a large concourse of visitors, to the great benefit of the retail trade in the whole region.

But, as I have often observed in these reports, the prosperity of Switzerland depends to an unusual degree upon the foreign market, both for its sales and its supplies, and on the whole the situation is not very different from that of recent years. What seems to me the most noticeable feature is the continuous decline in the prices of nearly all products, with the double result of an increase both in exports and imports. A measure of the larger foreign demand for Swiss products is given in the accompanying table of the exportation from the district to the United States. Much the same is reported of European countries which
customers of Switzerland, excepting

most extensive use are, besides a great variety of food products, the American base-burning stove, which is largely superseding not only the old-fashioned heaters but the cheap German imitations, sewing machines, agricultural tools and implements of all sorts, and an endless variety of useful inventions. Nearly all the hardware dealers now make a "specialty" of American articles, and one establishment in this city, the "Industrie Américaine," deals in nothing else.

This decline in prices, if it makes the conditions of life easier for the consumer, is naturally disquieting to the producer, as it means a competition of very wide extent, which he finds it harder every day to resist and to which he can see no limits. The character of Swiss agriculture has been extensively modified in the struggle, chiefly by the substitution of the cattle and dairy industry for others which have become unproductive. In manufactures, one important branch peculiar to this district, that of jewelry, has been almost wholly transferred to countries where labor is cheaper. It is to be said to the credit of the manufacturers here that they are trying to meet the difficulty by improving the methods, as well as by diminishing the cost, of production. An indication of this is the increasing number of patents applied for in the United States and other foreign countries, with the closer attention to artistic design and finish in watches, ornaments, pottery, musical boxes and the like. The enamels of Geneva, which have been celebrated since the great painters of the seventeenth and eighteenth centuries, Turquet de Mayerne, Petitot, and Thouron, have made a notable advance within the year, and are more than ever distinctly a work of fine art. In all improvement of this kind very much is due to the intelligent aid of the state, which has founded important schools of art applied to industry.

A more questionable experiment is the attempt to arrest the decline by agreements of the manufacturers to fix a scale of minimum prices for the various grades of goods. At best this can only avert the effects of competition at home, a small matter, since there is no considerable home market, while it forbids the individual manufacturer from meeting effectively competition abroad. The moment a minimum price is fixed here, say for a particular variety of Swiss watch, the American or English maker, having his work cut out for him, has only to put on the market a like article at a lower price.

With this general decline in prices there is one article of prime necessity which is daily growing dearer, until it has become an appreciable element in the cost of living and a serious check upon the industries of the country. I noticed in my last annual report the growing burden of taxation in this canton, due to the extensive works of public utility now in construction, and partly, according to the adversaries of the Government, to unsound finance and extravagant administration. To restore the equilibrium of the budget new taxes have been laid during the year, including a stamp duty of 10 centimes and a duty on bank circulation, [illegible] other important ones are proposed. In the Canton of Vaud a law [illegible] was adopted in August, the distinctive [illegible] proportional duty on the

There are signs also that the Government is quietly arming in face of the political situation of Europe, which must add to the military tax. On the whole it may be said that the happy superiority of the Swiss to his overburdened neighbors is no longer what it was a few years ago.

LYELL T. ADAMS,
Consul.

UNITED STATES CONSULATE,
Geneva, January 3, 1887.

ZURICH.

Report by Consul Catlin.

THE TRADE AND INDUSTRIES OF ZURICH.

If the commercial interests of Zurich for the past year be judged by the standard of its exports to the United States, the showing is an unfavorable one, the declared invoices at this consulate during the year ended September 30, 1886, being nearly $400,000 less in amount than those declared during the preceding twelve months (see Table I). This falling off was entirely due to a diminished export of silks, and this diminished export in turn was due to several causes, chief among which may be mentioned the activity of American competition, our high tariff, the persistent crusade against undervaluations, and a lessened demand in general, consequent upon the substitution of wool for silk in prevailing fashions.

THE ZURICH SILK INDUSTRY.

Speaking of the Swiss silk industry in general, the last annual report (1885) of the *Schweizerische Handels- und Industrie-Verein* says:

> During the past year our principal market for sales was the United States of America, but owing to the enormous 50 per cent. tariff, and to chicanery and delays, which have now become habitual over there in the collection of duties, as well as to this rapid increase of American production, this cannot much longer continue to be the case.

It need not, however, be inferred that the Swiss silk trade is entirely dependent upon its American orders. Rating the latter at 18, those from France may be placed at 15.5, from England at 13.7, and from Germany at about 7. The following table gives at a glance an interesting idea of the detail and extent of the Zurich silk manufacturer's relations with foreign markets, viz:

Shipments of silks from Zurich in 1885.

Countries.	Silks.	Half-silks.	Countries.	Silks.	Half-silks.
	Francs.	*Francs.*		*Francs.*	*Francs.*
Germany	6,918,800	567,379	West Africa	8,700	3,400
Austria	2,241,840	80,490	East Africa	4,400	.....
France	15,455,050	2,026,574	Asiatic Turkey	242,995	33,200
Italy	1,005,760	285,876	British India	298,080	270,350
Belgium	578,040	57,115	Dutch India	337,888	68,920
Holland	289,869	39,690	Eastern Asia	166,960	429,606
England	13,724,700	1,083,180	British North America	30,680	45,500
Russia	226,000	5,760	United States*	18,097,250	[illegible]
Sweden	254,020	15,160	Central [illegible]	[illegible]	[illegible]

Stated in round figures, Zurich shipped us through the consulate in 1883 two and a half millions, in 1884 two millions, and in 1885 one million six hundred thousand dollars' worth of silks, and from present estimates the decrease for the current year will prove to be in the same ratio. (See Table II.) So closely is the welfare of this community interwoven with that of the silk industry, prospering or languishing as it prospers or languishes, that a review of the former for any given period furnishes a pretty accurate idea of the entire business situation for the same time. I have therefore deemed it important to translate and append to this report (see Table III) a very full and interesting statistical statement recently issued by the Zurich Silk Industry Association. It shows a decrease during the last two years of 12 per cent. in the number of firms engaged in the business, of 22½ per cent. in the number of persons employed, and of 16 per cent. (or 3,487,747 francs) in the amount paid out for salaries and wages. Take away thus three and a half million francs in annual wages from a community of less than three hundred and fifty thousand population and the lack is certain to make itself painfully felt in all branches of trades. Throw ten thousand persons in the same community out of employment, compelling them either to seek for other work where all the trades are already full, to become a burden upon the remainder, or to go elsewhere and look for a living, and great distress is sure to ensue. Yet that is precisely what, according to the Silk Association's report, has occurred here in the Canton Zurich during the last two years.

ACTIVITY OF AMERICAN COMPETITION.

Chief among the causes to which the great shrinkage in Zurich's silk trade may be ascribed is the American competition in piece goods. During the three years ending December 31, 1882, our imports of silk piece goods at New York (where 95 per cent. of the silk goods sent to the United States are entered) averaged eighteen and a half million dollars annually, against less than fifteen millions annually for the three following years, or a falling off of about 20 per cent. Meanwhile our own silk production has been increasing proportionally. In 1880 the net value of our manufactured product was $34,519,723, against $33,305,460 of imports; in 1885 we manufactured over $50,000,000, against $25,000,000 of imports. In other words, where five years ago we supplied only one-half of our domestic demand we now supply two-thirds of it. The enterprise of the American silk industry is unsurpassed. During the last quarter of a century it has doubled the population of the great American silk-center, Paterson, which alone turns out over ten millions dollars' worth of finished silk goods annually. It has brought to our shores thousands of skilled European operatives, has been constantly developing new and advanced machinery and methods, and appears destined at no distant day to supplant the other [illegible] of the world.

supplied four-fifths of all the organzines delivered here in 1885. The following table gives the quantities and points of origin in detail, to wit:

Whence.	Organzines.	Trams.	Grège.	Total.
	Kilograms.	*Kilograms.*	*Kilograms.*	*Kilograms.*
France	2,283	739	971	3,993
Piedmont	19,305	714	104	20,123
Italy	242,985	72,934	12,196	328,115
China	17,433	109,079	32,311	158,823
Japan	13,161	142,733	31,728	187,622
Bengal	1,978	1,803	.....	3,781
Various	6,287	1,686	1,038	9,011
Total	303,432	329,688	78,348	711,468

Of our own raw-silk supply, on the other hand, the last annual report of the Silk Association of America (1885–'86) says:

Within two years the relative proportions of raw silk received from different sources have somewhat changed. One-fourth of the whole supply continues to be of European production. The shipments from Japan have increased so that nearly one-half of the whole value of raw silk received at this market now comes from Yokohama. China furnishes the remaining fourth of our supply.

THE WAR ON UNDERVALUATIONS.

During the past three years persistent efforts have been made by the Treasury Department, in conjunction with our consuls at the various European silk centers, to break up the long established custom of undervaluing invoices of silk shipped to the United States. For this purpose silk experts are employed at such consulates, with instructions to examine minutely samples of every silk shipped, determine with all possible accuracy its cost of production, and report the same to the consul, who in turn transmits the calculation on each silk to the appraiser at the port where the goods are to be entered. To this end, shippers presenting invoices at the consulate for authentication are required at the same time to deposit duplicate samples of the silks invoiced. One of these samples is subjected to the expert's examination, the other accompanies the triplicate invoice to the custom-house at the port of entry in the United States, for a similar examination there by the appraiser's experts. By means of this double scrutiny, the actual value of the goods, estimated as to cost of production, is accurately determined, and the appraiser thereby enabled to decide to what extent the invoice has been actually undervalued. During the three years ending September 30, 1886, the expert at this consulate has thus examined upwards of 2,500 invoices of silks, upon which he has estimated a total undervaluation of $431,474.81, upon which, if concurred in by the appraiser, an additional revenue (at 50 per cent. duty) of $215,737.40 would accrue to the revenue of the United States. As showing these undervaluations more in detail, reference is made to Table IV appended to this report. It will be observed that the percentage of undervaluations has been forced down within the period stated to an average of less than 9 per cent. In this connection Sir William Schneider, the silk expert and deputy consul at this port, adds:

tariff, a number of silk shippers have persistently practiced undervaluation of their invoices. Differences as high as 20 per cent., or even higher, are not uncommon. Some few exporters have discovered that systematic undervaluations no longer result in any practical advantage, and have come to base their invoices, if not precisely on market value, at least approximately on cost of material and labor in the production of the goods.

In addition to the cause of the diminution of undervaluations previously noted, it may be stated that many Zurich exporters, who in former years regularly made large and, of course, undervalued shipments to the United States, have of late either greatly reduced or entirely discontinued them. Some half a dozen manufacturers who were engaged in the American trade have retired from it altogether, and to this fact the silk export from this consular district for the past year bears ample testimony. The falling off in Zurich's American silk trade finds a further explanation in the constantly increasing competition of American manufacturers, who inform themselves as to which of the Zurich wares are most in demand in their market, and then turn in and manufacture similar ones themselves.

THE COTTON INDUSTRY.

Shipments of cotton fabrics and yarn to the United States have increased considerably during the year ending September 30, 1886, amounting to upwards of $30,000 in value, as compared with about one-fifth that amount for the calendar year 1885. The cotton industry of Switzerland imports annually over 100,000 bales (of which America furnishes more than one-third and Egypt over one-quarter), and employs in all about 90,000 persons, as compared with 65,000 employed by the silk industry and 44,000 by the watch and jewelry interest. Zurich, in particular, has always supported a large cotton manufacture side by side with its silks. As long as a century ago it had, according to official count, 6,479 looms for muslin and indienne, and 30,000 hands employed at cotton-weaving. England is to-day, in this industry, Switzerland's principal competitor. Her cotton yarns, twists, raw fabrics, tulles, cambrics, and prints compete with the Swiss in every European market, while, strange to say, she is, on the other hand, next to ourselves, the largest importer of Swiss embroideries, of which she orders $6,000,000 worth annually. Thus English rivalry has either embarrassed or in great part displaced Swiss cottons in the best markets of Europe during the past decade. In other and neutral markets, however, the Swiss have held their own, with the exception of the east and west coasts of Africa, where their goods find a yearly diminishing demand, owing either to a lessened consumption or to a preference for the English goods. To sum all up, at the close of 1885, of 1,850,000 spindles in Switzerland, 200,000 were idle, and it is stated that several establishments, which, owing to the insolvency of their proprietors, would otherwise have come to a standstill, were only kept running by the banks, thus averting much misery and distress. The great cause for suffering in the cotton industry has been the depreciation in values.

THE WOOLEN INDUSTRY.

The shipments of all woolen goods from this consular district to the [illegible] comparatively insignificant in amount. Of silk and [illegible] was about $14,000, which,

itself felt throughout the trade. By many this sudden depreciation is ascribed to a caprice of fashion prescribing coarse stuffs instead of the finer ones for ladies' wear; further, that wool shared in the general decline which during the past year affected all leading articles of commerce. Yarn fell as much as 20 and even 25 cents per pound, according to number, and at the year's close these prices still held. This weakness in yarns is ascribable also to the decrees of fashion, the Swiss yarn machinery being so constructed as to render it incapable of delivering yarn such as is required to weave the coarser fabrics, and such as the French and English factories are constantly delivering. It resulted from this fact last year that at Gera and Greiz, two of the principal German centers for the delivery of Swiss yarns, half the looms were standing idle for months at a time, because there was no demand for cashmeres, merinos, &c.

STRAW GOODS.

In the adjacent Canton of Aargau, there are about forty firms engaged in the straw-weaving industry, and employing, during the winter, twenty thousand hands, with a total annual product of $1,000,000 and upward. The Isler straw factory at Wohlen, which ships largely to America, has been in operation there and owned by the same family since 1790, and the direct trade with New York, which dates from about 1840, has continued and increased up to the present day. In 1884 (September 30) the shipments were $20,000; in 1885, $45,000, and this year upwards of $55,000, all to New York. The principal article of manufacture and shipment is straw braids or tresses, the material used being rye straw, which, while preferred on account of cheapness, is however not available for making white, but only colored and mixed goods. This has developed the manufacture of Aargau specialties in straw-weaving, known as "fancy articles," "straw wires" and "borders," for which rye straw proves especially fitted. In manufacturing these, as long ago as 1845–'55, as many as 15,000 hand-looms were engaged.

Few industries are subject to more violent fluctuations than this one, dependent as it is upon a demand controlled more or less by the uncertain temperature of the seasons. "It is not to be disputed," remarks a writer on this subject, "that invariably, after a series of hot summers, light straws, especially yellow and white, come into fashion, and one is always more disposed to buy a high-priced straw hat when there is a prospect of a warm season."

Another very important branch of Aargau straw industry consists in the manufacture of what are known as "straw ornaments," such as buttons, acorns, sprigs, &c., which are largely used in connection with artificial flowers. These goods are mostly shipped to London and New York, but also, to some extent, to Germany.

It is impossible to obtain the total export or import of straw goods (or in fact of any other article) from or into this single section of Switzerland for any given period.

ANILINE COLORS AND OILS.

The Swiss tariff, which went into effect on January 1, 1885, and which reduced by one-half the entry duty on [illegible]

the purpose, and somewhat similar to our petroleum-cars, with wrought-iron cylinders of about 10 tons capacity each.

There are, however, two sulphuric-acid factories in operation in this canton, but the import last year from Germany alone was over $60,000, and the same country sent into Switzerland during that period no less than $260,000 worth of aniline colors and oils. Where such conditions prevail, it is indeed not remarkable that the Swiss total exports of the latter foot up for the year only the pitiful sum of $34,000, of which only $11,000 went elsewhere than to Germany. From this consular district there were shipped to the United States only $2,440.91 of this line of goods.

The entire situation of the Swiss chemical industry may be summed up in a few words, viz, a ruinous low-entry duty and an overwhelming German competition. Moreover, the decline in the silk industry, affecting also silk dyeing and printing, has also had its appreciable influence upon the current demand for chemical products. As will be seen by the following table, there has been a steady fall in the average price of nearly all the leading articles during the past three years, viz:

Articles.	Price per 100 kilograms (220 pounds).		
	1883.	1884.	1885.
	Francs.	*Francs.*	*Francs.*
Sulphuric acid	12.00	11.00	10.00
Nitric acid	48.00	45.00	43.00
Salts acid	7.50	7.50	7.00
Vinegar acid	35.00	35.00	29.00
Salts of soda	24.00	20.00	18.00
Crystal soda	10.50	950–10.00	8.50
Glauber salts	11.00	11.00	8–9.00
Chalk	17–31.00	22–24.00	24.00
Iron vitriol	10.00	9–10.00	8–8.50
Copper vitriol	59.00	48–49.00	43.00
Sal ammoniac	54.00	48.00	41.00

THE COAL SUPPLY.

Switzerland's annual import of hard coal amounts to $3,000,000 in value, and her imports of coke, charcoal, briquettes, &c., to about a third of a million more. Of the hard coal nearly all comes from Germany, at an average cost of $4.25 per ton. The freight on a 10-ton car-load from the Saar coal mines of Prussia to Zurich, exclusive of the Swiss entry duty of 2 francs, varies from $2.60 to $2.73 per ton, according to place of shipment. Germany's efforts to send her coal across Switzerland, via the St. Gothard to Italy, have thus far met with but little success. Of Italy's $2,600,000 coal import in 1885, England furnished $2,250,000, and Germany only $70,000.

MACHINERY.

Switzerland imported $1,500,000 worth of all kinds of machinery, finished and unfinished, last year, and exported nearly three times that [illegible] $600,000 worth of looms and embroidery ma- [illegible] tioned 27 locomotives,

METALS.

Germany snipped to Switzerland last year, in round figures, nearly $3,000,000 worth of iron. Of the thinner kinds of sheet-iron, however, England furnishes the greater quantity used in this section, and double what Germany does. Belgium is also an active competitor. The precious metals come mostly from Italy and France, each of these countries having, during 1885, furnished over $2,000,000 worth of gold, silver, and platinum, either unwrought or in coins. It is difficult to state the Swiss product accurately, but competent authority estimates it from $80,000 to $100,000, or about one-half the demand. Prices remained last year generally unchanged, excepting in the case of nickel, which fell considerably, thereby bringing it within the range of a widely increased use for household and other purposes. The wages paid to Swiss metal-workers average from a quarter to a third per cent. higher than those paid in Belgium or Austria, but range about the same as those paid in Germany.

In this connection allusion may be made to the great success attained by the Swiss in the finer grades of metal work, namely, the manufacture of delicate scientific, astronomical, chemical, surgical, mathematical, and optical instruments. The total shipments of such last year amounted in values to nearly $200,000, of which $80,000 went to Germany, $60,000 to France, and the remainder to various other lands.

EARTHENWARE.

A certain marked increase of activity in building in this section of Switzerland has of late years given an impetus to the demand for bricks, tiles, cement, and other similar building materials. Bricks cost per thousand, delivered, in Zurich 40 francs, in Basle 28, in Lucerne 47, and in St. Gallen 50. In tiles there is a strong German competition, the duty being only one mark (25 cents) per 100 kilograms (220 pounds). Last year 1,100 car-loads, carrying 3,500 tiles each, were thus brought in from over the Rhine. The Swiss say that the German, in order to avoid overproduction, sells his tiles cheaper in Switzerland than he does at home. There is no reciprocal export thither in such articles. The German tile-maker has it all his own way. In earthen drain-pipes there was last year a dearth of demand, owing to the competition of cement and stone articles of the same description. The manufacture of stone tableware, which was formerly carried on actively in Zurich, is now only kept up in a few small shops, and still continues to dwindle from the same cause, a powerful competition from abroad.

Of the Swiss cement factories, it was estimated three years ago that their annual production was, in Portland cement, $444,000; in Roman, $180,000; and in hydraulic lime, $160,000; or a total of nearly $800,000. The annual import of Portland cement is $145,000; of Roman, $90,000; of quarry and building stone, $90,000; and of asphalt and similar material, $250,000. In this connection particular attention is directed to an article translated from the *Neue Züricher Zeitung*, of this city, in regard to cement competition, which appears in another part of this report.

(*a*) The scarcity of fire-wood in Switzerland is illustrated by the fact that last year the import, which was mostly from Germany, amounted to nearly $500,000, the export to only one-fifth that amount.

(*b*) But in building material Switzerland has vastly the advantage, her exports being nearly double her imports, and amounting last year to over $1,000,000, of which half consisted of pine boards, shipped to France.

(*c*) The annual export of the goods classified as above under this head amounts to about $200,000, the import to $180,000. This, in view of the known expertness of the Swiss mountain wood-carvers, surprises one. But it is more or less explained by the following statements which I find in the last annual report of the *Schweizerische Handels-und Industrie-Verein*. It says:

Consequently, for years past the sales of wood-carvings have been retarded, and that too, if not by domestic competition, at all events by the progress made through the great endeavors of foreign rivals. A further and principal reason is the change of styles in furniture. Wood-carving has lost the attraction of novelty which it possessed twenty, thirty, or more years ago; overproduction and excessive importation have not only greatly lessened people's liking for the goods, but, in many cases, have developed a positive antipathy. Articles which were formerly made almost entirely in wood are now, in many instances, made in metal, and all the more for the reason that the latter is more solid and astonishingly cheaper. In addition to these three principal reasons the high entry duty on large articles makes it in many ways impossible for us to deliver goods abroad, especially when the very same goods can be delivered here cheaper than elsewhere.

* * * * * * *

The golden times for wood-carving, when an expert and industrious carver could earn as high as 20 francs a day, are past. The best workman now averages 5 francs daily, and from that the prices paid dwindle down to the wages paid beginners, women, and girls, who, not unfrequently, after a day's work of ten to twelve hours come out with not over a franc earned, and are even glad when their embarrassed employer can pay them that in cash.

PAPER AND BOOKS.

In the matter also of paper supply Switzerland's balance in exports and imports is on the debit side. She imports, it is true, less material than she exports, *i. e.*, rags and fibrous substances, in the ratio of 9.8 to 29, Germany and France being the principal recipients of her cast-off favors of this character. But, as regards ready-made paper of all kinds, she imports $800,000 worth, or just double what she exports. In papers for printing, writing, drawing, &c., her shipments are indeed greater by two-thirds than her receipts. But this is more than compensated for by the excess of her imports on colored paper, tickets, pasteboards, and cards. Her principal article of competition with foreign manufacturers is paper for printing newspapers, and this has brought prices down during the past year to an unprecedentedly low price.

During the last two years book-printing in Switzerland, especially in respect to scientific, technical, and art works, and those pertaining to what are termed "Fatherland literatures," has taken a marked step forward. Newspaper literature has shown a less noticeable development. In this canton the authorities have of late years taken upon themselves [illegible] books used in the public schools, thereby

LEATHER.

Upon this branch of industry there is little to be added to the full report already made and published in No. 59 of the Consular Reports, unless it be to remark that the situation has not improved, but on the contrary grown worse, if anything, for the Swiss tanners who suffer under German competition, and the manufacturers and dealers who struggle under the disadvantages of the special treaty with France, which enables the latter country to undersell them on the finer goods here in their own market.

Last year's import of leathers, raw and finished, footed up a total of nearly $4,000,000, the exports $2,000,000.

CLOTHING.

Of clothing of all materials, cotton, linen, woolen, and silks, Switzerland imported last year about $4,000,000 worth, exporting during the same period less than $1,000,000; of hats, of all kinds, $1,000,000 imports, and less than $300,000 exports; of gloves, $200,000 imports, and less than $4,000 exports; and of shoes, of all kinds, $1,600 imports, and a trifle over $1,000,000 exports.

The greater part of the imported woolen clothing comes from Germany, the fine shoes from both Germany and France. The largest exports of fine shoes were to the Argentine Republic, England, and Egypt.

Prussia is gradually becoming the manufacturer of clothing for all Europe. In 1882 the largest percentage of her population employed in any single branch of industry was that engaged in the manufacture of clothing, namely, 17.41 per cent. No wonder, then, that overproduction causes enormous quantities of men's and women's wear to be launched at low prices upon the Swiss market. In this canton the domestic goods used for men's wear are mostly those known as "home-made," that is, made in the house of the wearer. The report previously quoted says:

> In Zurich the tailors stirred up a strike against a particular firm, though without sucess, on the ground that it employed none but German cutters; yet, spite of all their agitation, they failed to induce any of the Swiss workmen to join in the strike.

Two noticeable facts in the Swiss clothing trade are these, viz, that overcoats are coming more and more into use among the peasantry, and that owing to the spread of the railway system and the constant diminution of the number of teamsters, the traditional blue l louse has gone entirely out of use.

In women's suits, finished goods are imported from Berlin or Paris only in small quantities, as models. Ninety-five per cent. of the suits sold are finished here in Switzerland by the domestic firms. In cloaks, it is curious to note that Paris, once regarded as the center of the world's fashions, furnished Switzerland last year only one quarter, the remaining three-fourths coming from Germany.

In hats, Switzerland is overrun with wares from all four of the adjacent countries. Bazaars are established by agents from Berlin in all the larger cities and towns, offering at ridiculously cheap prices every-

THE IMPORT OF STAPLES.

The import of the following seven leading staples into Switzerland during the past five years may be tabulated as follows, it being noted that the apparent excess in 1884 was due to the anticipated taking effect of the new tariff of January 1, 1885:

[1 metric centner = 220 pounds.]

Articles.	1881.	1882.	1883.	1884.	1885.
	Met. cent.	*Met. cent.*	*Met. cent.*	*Met. cent.*	*Met. cent.*
Coffee	97, 834	95, 489	95, 943	91, 763	89, 410
Sugar	270, 710	279, 681	295, 191	368, 172	268, 208
Rice	73, 810	77, 462	77, 843	80, 722	47, 757
Oil	97, 679	98, 052	101, 909	116, 562	74, 561
Alcohol	151, 775	133, 412	106, 206	119, 316	111, 143
Lard	51, 802	42, 232	50, 506	44, 216	37, 174
Petroleum	259, 013	278, 574	268, 423	331, 226	270, 027

Coffee.—Holland furnishes nearly one-quarter of the entire Swiss consumption. Then come in order Germany, Belgium, France, and Brazil.

Petroleum.—The importation of Caucasian petroleum, principally the brand "Palaschkowsky," of the Batoum Naphtha and Trading Company, has been actively pushed, but not as yet with entirely satisfactory results. The American petroleum still has the preference in the market.

OVERWHELMING GERMAN COMPETITION.

Taking now a general survey of the commercial and industrial situation in this section of Switzerland, as based upon the preceding statements and figures, we find everywhere present and dominant the determined pressure of German enterprise and competition flooding the land with all classes of her manufactures and products, and in most cases at the ruinous prices which inevitably follow overproduction. As a measure of self-protection, as a vital necessity in fact, Switzerland now seeks to frame a new tariff treaty with Germany, asking more favorable terms for the entry of her silks, cottons, cheeses, watches, and a few minor articles into the Imperial domain over the Rhine. But shrewd German demurs. Her present treaty with Austria expires at the end of next October (1887), and should she now make special concessions to the importunate Switzer how can she refuse similar ones next year to her Austrian neighbor, who will be equally importunate? But Switzerland is determined in her demand, and it is intimated that in case the desired concessions are refused she will declare a tariff war and impose a heavy duty on the chief German imports, including woolen goods and clothing. This would redound immensely to French interests in the Swiss markets, as Switzerland's special treaty with France has still five or six years to run.

In these circumstances it is significant to read in a recent Berlin [illegible] the Swiss-German Commercial [illegible] discuss a

appeared a few days ago (November 8, 1886), in the *Neue Züricher Zeitung*, a leading journal of this city:

The German commercial treaty.—It is certainly most interesting to observe what weapons are being resorted to in this strife of interests. In the *Thonwaaren-Industrie-Zeitung* [the organ of the earthenware industry] of the 24th of July last, for instance, we find a report of the proceedings of the German Cement Manufacturers' Union. The presiding officer informed the meeting in strictest secrecy that he had addressed a lengthy communication to Prince Bismarck, the chancellor of the German Empire, on the subject of the tariff on cement. The German Empire finds it to its interest not to impose any entry duty on cement so long as Switzerland and Austria impose none. This is an exceptional case, as Switzerland usually imposes a very light and Germany a very heavy duty on this line of articles. And now, in the opinion of these gentlemen who, of all others, up to now, have been supplying Switzerland with cement and making life a burden to the domestic manufacturers, this exception should also be done away with. "We venture indeed to petition his serene highness to use the influence of the Imperial Government against Switzerland so as to effect a reduction in the present high duty. Possibly the expiration in 1886 of the existing commercial treaty with Switzerland may offer an opportunity for this action. We allow ourselves at the same time to call his serene highness' attention to the high duty imposed on cement by Austria, and to petition that measures may be taken for its reduction." Thus, in one breath, is attention directed to Austria's conduct, and the aid of the Empire invoked against Switzerland. Such a thing might do very well in regard to the Congo State or Cameroon, but even in that case diplomacy would be shy about saying so.

THE SWISS VIEW OF IT.

I remarked above that the declaration of a tariff war by Switzerland on Germany seems a near probability. As confirmatory of this view, I find that a meeting was held at Olten, near here, a day or two ago, to discuss this question and take vigorous action. It was composed of a hundred and fifty leading and representative men, and presided over by an ex-Federal councilor of this city. The result was the unanimous recommendation of an amendment to the tariff, empowering the Federal Council to impose a fourfold entry duty upon all goods coming into Switzerland from countries with which no special treaty exists, or which themselves impose an inordinate duty upon foreign products. This, if adopted, means a tariff war to the knife. The chief speaker of the meeting set forth so eloquently and forcibly Switzerland's position in this matter that I give herewith a *résumé* of his speech.

Swiss exports [he said] are constantly decreasing. The year 1885 closed with a deficit of 95,000,000 francs. These deficits, in case they recur regularly, involve serious peril for our land. The so-called foreign industry cannot make them good; its importance is greatly overrated; Switzerland can only hold her own by raising her tariff. We are free-traders, but only so long as the others are. If they are protectionists they have a right to be; we do not seek to compel the other countries to close their doors to us, but we will not keep ours open to them. Shall we let ourselves be driven to the wall in the defense of an untenable principle? Switzerland has it in her power to better her position. As to our relations with Germany we need not worry. We regard a renewal of our commercial treaty with her in its present form not merely with indifference but with opposition. Of Austria's products, which are mostly agricultural, we have no need whatever. Austria must come to us, not we to her. In our intercourse with Italy we have a deficit of 52,000,000 francs, which must be looked into carefully. Nevertheless we import great quantities of articles which can just as well be furnished in Switzerland. It is nonsense to import flour while ruin stares our Swiss millers in the face. Our malt and brewing industry is flourishing, and renders foreign imports in that line useless. The tobacco we [illegible] satisfies the most fastidious smoker and [illegible] which we have [illegible]

AGRICULTURE.

According to the Swiss census of 1880 only one-fifth of the population depends upon agricultural pursuits for a living. Of a total area of 15,991 square miles, about 70 per cent. only is classed as productive area, and of that about three-fourths consists in farms, gardens, and pastures.

Last year the wheat and corn crops were unusually good, amounting to something over 41,741 tons. Rye fell off somewhat, yielding 31,919 tons. Of barley there was a full crop, estimated at 7,363 tons. The entire grain crop amounted to 115,400 tons, representing a value of $8,000,000. But the imports for the same period amounted to $16,000,000 worth of grain and flour, or double the amount produced. The exports were practically nothing, owing to the high duties imposed at all the neighboring frontiers. For instance, Swiss flour entering Germany pays 85 cents duty on the 100 pounds, while German flour entering Switzerland pays only about 11 cents duty on the same amount.

I append (as Table V) to this report a statement showing the movement of prices for grain, flour, and bread during 1885, as quoted by the Zurich Grain Exchange.

THE VINTAGE.

In this consular district, and especially on the slopes overlooking the Rhine and the Lake of Zurich, the cultivation of the grape is closely identified with the agricultural interests. I have been at some pains to obtain a definite statement concerning this year's (1886) vintage, and am indebted to the Rev. Dr. Kubler, of Neftenbach, the Federal and cantonal expert, for the following information. He writes me that—

> The vintage in Northeastern Switzerland this year discloses such a variety of results as have never before been recorded. In quantity the yield varies from 1 to 20 hectoliters [22 to 440 gallons] per juchart of 36 ares [three-quarters of a square acre], and between these two extremes all possible variations of yield are reported. In quality the white rates at 60–75 degrees Ochsler, the red, where gathered ripe, at 70–90 degrees. In the inferior qualities about 1.8 per cent. acid is found. In prices the white varies from 26 to 30 francs per hectoliter [22 gallons], and the red from 40 to 90 francs.
>
> The failure of the vintage is due to heavy May frosts, cold rains during the budding season, and mildew.

CATTLE AND CATTLE-BREEDING.

The profits of the cattle-trade of this section of Switzerland were even less satisfactory in 1885 than they had been in the previous year. The number exported rose, it is true, from 67,127 in 1884 to 74,497 in 1885, while the import fell from 126,236 to 79,833; yet, notwithstanding this, the net proceeds of the year's business showed a decrease. It is estimated that the decrease in value on milch and beef cattle in the year 1885 for all Switzerland averaged nearly $20 per head.

Prices range about as follows: Handsome young cows, 1,200 to 1,300 francs per pair; middling, 900 to 1,100; cows with calf, three-yearlings, two-year olds, 160 to 350; young oxen, one to one and

Inquiries from the United States for Swiss cattle occur occasionally. One enthusiastic stock-breeder from Connecticut scoured this section of Switzerland last summer, camping out with the herdsmen in the Graubunden Mountains, and making a thorough inspection of the various purchasable stocks.

It is of interest in this connection to mention that Switzerland last year supplied 15,000 beef cattle to Germany, and 22,000 milch cattle to Italy.

TOBACCO CULTURE.

Of late years, both in this section and in the neighborhood of Lausanne, Switzerland has begun to raise considerable tobacco. Last year's crop is roughly estimated at 1,900 tons. Consumption fails, however, to keep pace with production, which serves to increase the stock of the domestic product on hand, pushes down the price, and so comes back ultimately upon the workman, while the manufacturer is compelled to use better, *i. e.*, imported, material. Statistics show that the average cost of cigars and cigarettes (packages) brought *into* Switzerland is 19 centimes (3.6 cents), while that of those shipped *from* Switzerland is less than 2 cents (9 centimes) apiece. The import of tobacco leaf last year was $1,100,000, the export only $50,000; of smoking-tobacco and snuff, import, $48,000, export, $40,000; of cigars and cigarettes, import, $680,000, export, $400,000.

FINANCIAL.

The rates of discount during the first nine months of the present year (1886), as quoted by the Zurich Kantonal Bank, have been as follows:

Period.	Rate.	Period.	Rate.
	Per cent.		*Per cent.*
January 1 to February 2	3	April 22 to May 9	4
February 3 to March 10	3½	May 10 to May 19	3½
March 11 to April 4	3	May 20 to June 6	3
April 5 to April 21	3½	June 7 to September 30	2½

Averages.

Years.	Rate.	Years.	Rate.
	Per cent.		*Per cent.*
1885	3.11	1881	4.11
1884	2.91	1880	2.92
1883	3.02	1879	3.33
1882	4.51		

LOANS ON COLLATERALS.

The rate of interest on collateral loans during the first nine months of the present year (1886) has varied as follows, viz:

Period.	Rate.	Period.	

Averages.

Years.	Rate.	Years.	Rate.
	Per cent.		*Per cent.*
	3.75	1881	4.76
1885	3.70	1880	4.24
1884	4.7	1879	4.55
1883	5.12		
1882			

MORTGAGES.

On the 1st of January of the present year the three Zurich banks lending money on real-estate mortgages reported 120,835,224.41 francs so invested, as compared with a total of 123,960,744.40 one year before. The bulk of this amount, viz, 113,234,838.44, was invested at over 4 per cent.

CURRENT ACCOUNTS.

The fluctuations of interest on current accounts during the first nine months of this year are quoted as follows, viz:

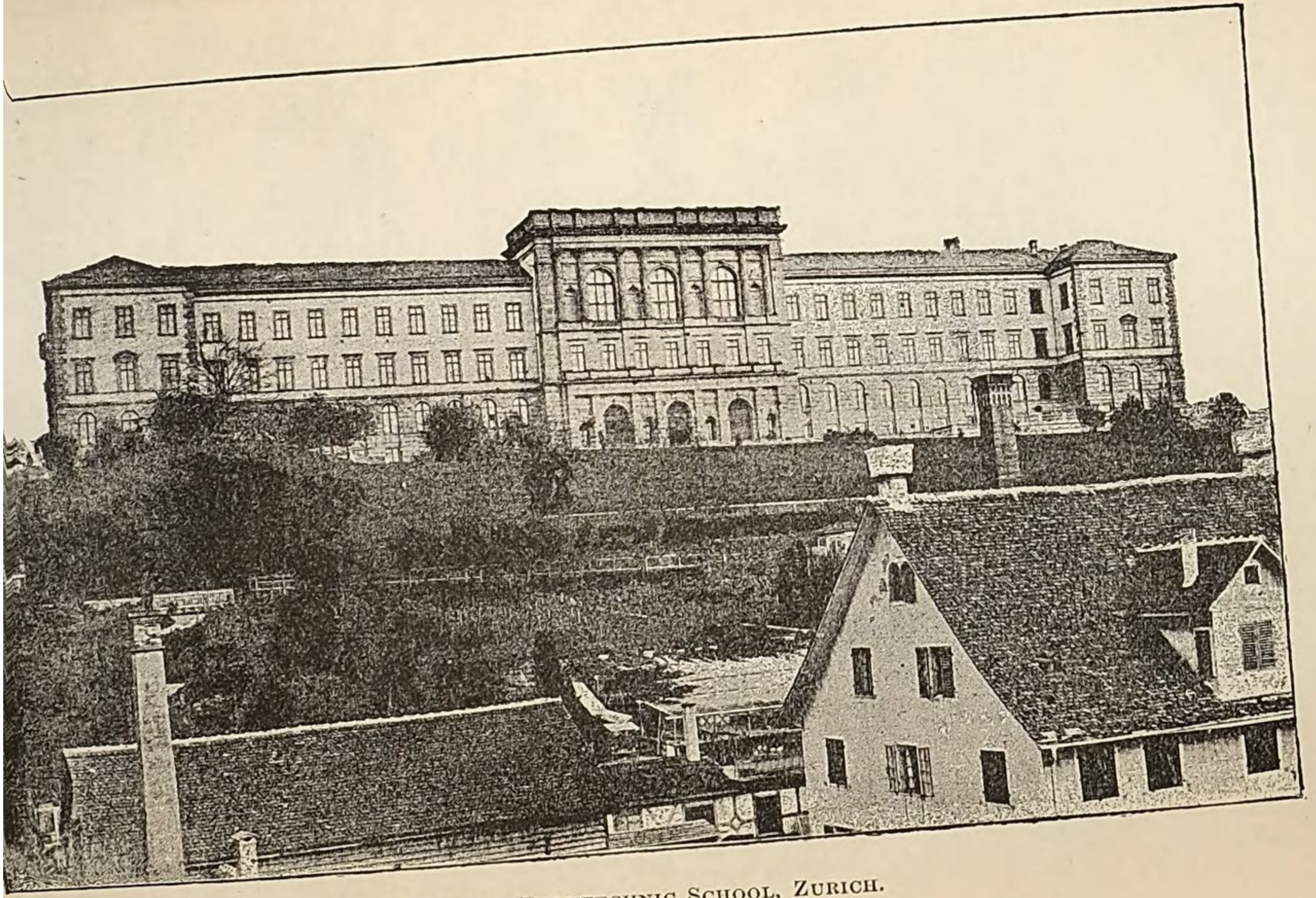
Period.	Checks.	Credits.	Debits.
	Per cent.	*Per cent.*	*Per cent.*
From January 1 to April 30	1½	2½	4½
From March 1 to May 30	2		
From May 31 to September 30	1		
Average:			
1885	1.43	2.58	4.35
1884	1.33	2.54	4.5
1883	1.68	2.73	4.54
1882	2.77	3.79	5.28
1881	2.47	3.26	4.74
1880	1.57	3.01	4.67
1879	1.87	3.08	4.85

RATES OF EXCHANGE.

The rates of exchange on England, France, Germany, Italy, and Austria, together with the quoted values of all leading securities, given by months during the year, will be found set forth in Table VI, appended hereto. In Table VII is given also a statement of the condition and solvency of all the banks in Canton Zurich at the close of last year.

TRAFFIC.

The Northeastern Railway of Switzerland, with its leased lines, Sulgen-Gassau and Effretikon-Hinweil, controls the traffic of this section, operating in all 541 kilometers (336 miles) of road, together with steamboat service on the lakes of Zurich and Constance. I forward herewith a copy of the company's last annual report, showing the increase of its passenger business in 1885. The connection with Northern Italy, via [illegible] with the Austrian Tyrol, Salzburg, and Vienna, [illegible] Zurich an important



FEDERAL POLYTECHNIC SCHOOL, ZURICH.

Map
showing the
New Quay-Improvements
at
Zurich.

shows made land.

VIEW OF QUAY AND NEW BRIDGE, ZURICH.

Lucerne and Geneva as a resort for summer pleasure-seekers from foreign lands. In order to encourage this movement and render strangers' stay in Zurich agreeable, a large number of public-spirited citizens have during the last season organized a commission and opened an office in the Exchange, where all information relative to railway and the steamboat connections, hotels and boarding-houses, shops, amusements, points of interest, &c., may be had by visitors in any language and free of cost.

Last year's passenger business on the Northeastern Railway amounted to 5,125,485.10 francs ($1,000,000 in round figures), being an increase of 226,880.62 francs over the previous year's business. There was also an increase of upwards of 26,000 francs in the receipts from the transport of baggage, showing an undoubted increase of tourist travel in this section. A proposition looking to the repurchase of this road by the Swiss Government is now before the Federal authorities at Berne.

I append as Table VIII a statement showing the aggregate receipts of all Swiss railroads from passengers and freights during the first nine months of the present year (January 1 to September 30, 1886).

EDUCATIONAL MATTERS.

The official educational report of last year for the Canton Zurich places the attendance at the public schools of children between six and fifteen years at 58,972, with 1,483 teachers, and at private schools 1,746 children, with 138 teachers; a total of 60,718 children and 1,621 teachers. This shows an increase of 1,459 pupils and 77 teachers over the report of the previous year. The canton is divided into 11 school districts, and these in turn into 191 school wards. There are 54 schools and kindergartens for small children, employing 70 female teachers and attended by 2,913 pupils. In the high school, for the summer season of 1886 there were 471 (including 53 female) students, of whom 17 (5 male, 12 female) were from the United States, and pursuing courses either in medicine or philosophy. The total Government outlay for educational purposes in the canton during the year was 1,898,606.84 francs, an increase of 23,032.80 francs over the previous year's expenses.

The silk-weaving school, which has been in operation in this city for five years past, reports an attendance of 33 scholars, with 4 teachers. It is required that pupils on entering shall have attained their sixteenth year, the course being divided into two classes. By a generous subvention from the Federal Government young men of intelligence, but without means, are admitted and assisted to complete the courses. The school is well equipped, and has already done good work in diffusing a practical knowledge of weaving.

During the present season the new chemical-school building in this city has been thrown open for use.

PUBLIC WORKS AND IMPROVEMENTS.

The outlays of the Canton Zurich on its turnpikes amounted in 1885 to 144,561.63 francs, and on its river-fronts (Limmat, Töss, Thur, Rhine, Glatt, and Sihl), 377,347.93 francs. The new building for physic and physiology in this city was completed at a cost of 248,845 francs; and in addition to these principal expenditures

scores of old buildings have been or are being demolished, and upon their sites solid blocks of four or five storied granite edifices, built in the most substantial and tasteful styles, are being put up and occupied as soon as completed. This development is consequent upon and in connection with Zurich's quay improvements, which have been in progress since 1881 and are now finally nearing completion. This great undertaking, which will cost, when finished, nearly 7,000,000 francs, has already transformed Zurich into the most beautiful and attractive of all the Swiss cities. This great engineering achievement, after five years' labor by an army of workmen, has completely transformed the lake front of the city, has reclaimed from the waters of the lake a continuous promenade of 3 miles and a park of some 20 acres, planted them with full-grown forest trees and all varieties of Alpine plants and mosses, and thus given to residents and visitors a public resort unsurpassed in picturesqueness and beauty.

GEORGE L. CATLIN,
Consul.

UNITED STATES CONSULATE,
Zurich, November 11, 1886.

Silk and total exports from Zurich, by years, since 1883.

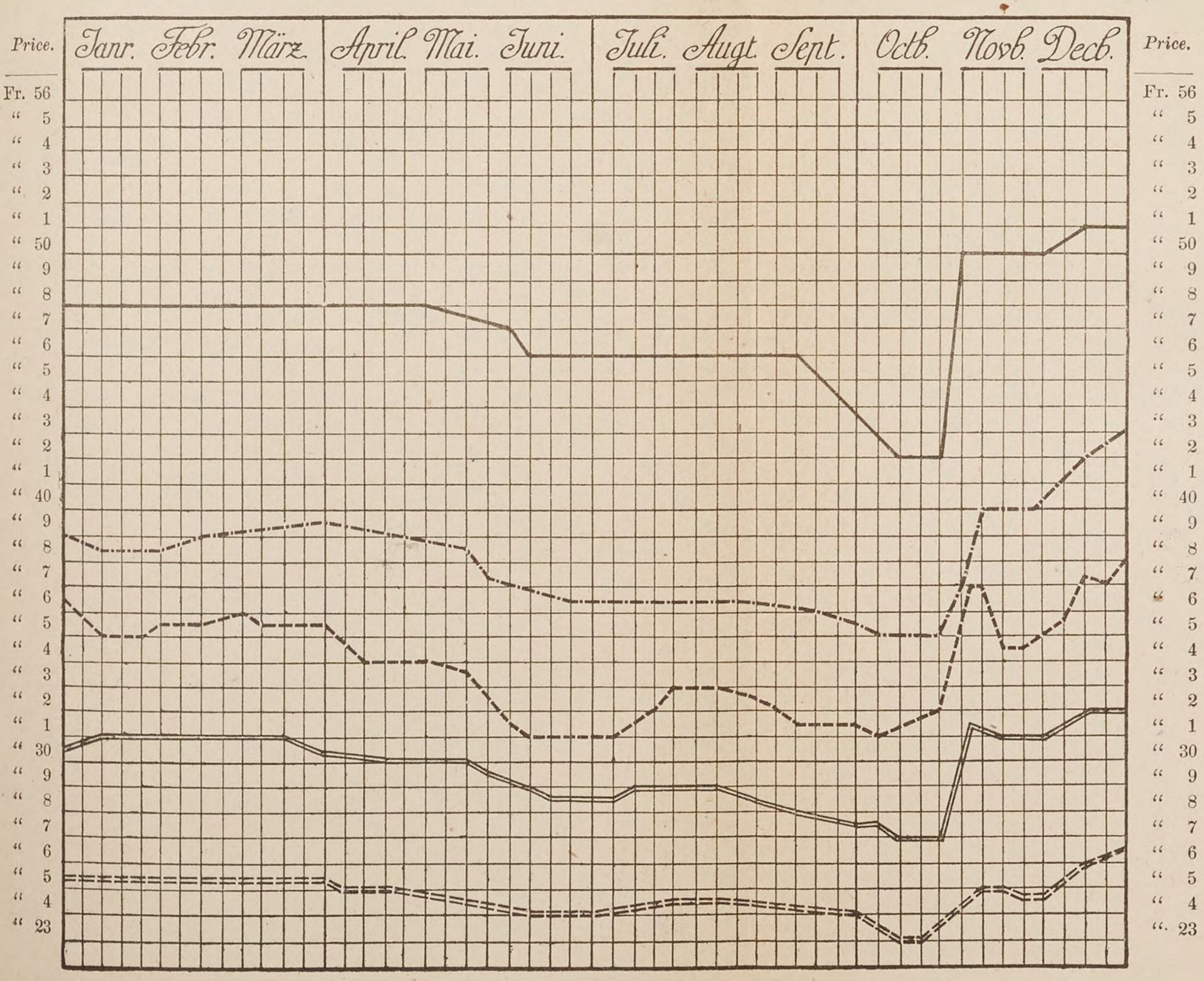
Year.	Silks.	Total.	Decrease from previous year.
1883	$2,502,407 73	$2,536,344 42	.....
1884	2,016,248 88	2,084,892 05	$451,452 37
1885	1,606,338 90	1,807,724 42	277,167 63

Statistical report of the Silk Industry Association of the Canton of Zurich for the calendar year 1885.

Items.	Difference in per cent. from 1883.	1885.	1883.	1881.
SILK GOODS, MANUFACTURE OF.				
Dress-goods factories ..... number.	−10.7	84	94	91
Winders employed December 31 ..... do..	−18.4	5,420	6,644	6,433
Winding machines (round and mechanical) ..... do..	.....	4,209	.....	.....
Throwing frames, December 31 ..... do..	−30.2	472	676	682
Mechanical throwing machines, December 31 .... do..	−17.1	623	752	685
Hand-weavers, male and female, December 31:				
In Canton Zurich ..... number.	.....	11,959	17,925	19,168
In other cantons ..... do..	.....	8,122	11,791	11,230
Across the frontier	−32.1	84	.....	.....
	.....	20,165	29,716	30,398
Hand Jacquard looms, December 31 ..... number.	.....	628	.....	.....
Hand velvet looms, December 31 ..... do..	.....	15	.....	.....
Mechanical looms, December 31:				
For smooth and twilled textures, December 31 ..... number.	.....	3,891	.....	.....
..... do..	.....	193	.....	.....
Jacquard looms ..... do..	.....	45	.....	.....
	.....	4,007		3,151

CHART

SHOWING THE FLUCTUATIONS IN RAW SILKS AT ZURICH IN 1885.



Ital. Grège 10|11. *Japan Grège* 2-2½. *Tsatlee Grège best* 4½.

Price in francs per kilo 3 *months.*

Ital. sublime Org. 18|22. *China Trame* 40|50 *best* 4½.

Price in francs per ½ *kilo* 9 *months.*

Statistical report of the Silk Industry Association of the Canton of Zurich, &c.—Cont'd.

Items.	Difference in per cent. from 1883.	1885.	1883.	1881.
SILK GOODS, MANUFACTURE OF—Continued.				
Weight of goods manufactured:				
Raw-worked grèges and ouvrées ..... kilos.	.....	88,064	.....	.....
Organzines in color ..... do..	— 19.4	328,725	408,034	386,636
Trams, in colors ..... do..	— 22.7	332,269	429,797	356,311
Spun silks, in colors ..... do..	+134.8	7,732	3,293	1,181
Raw worked wools ..... do..	.....	164	.....	.....
Wools, in colors ..... do..	.....	10	.....	.....
Raw worked cottons ..... do..	.....	93,677	.....	.....
Cottons, in colors ..... do..	— 26.6	170,388	231,972	262,233
Pieces delivered.	.....	1,021,029	.....	.....
Smooth goods (taffetas):				
Marceline and lustrine appretée (gros d'Orient) ..... No. pieces.	+ 11.00	29,075	26,177	18,673
Poult de soie and faille color (80.3 threads) .. do..	— 73.2	10,621	39,682	31,189
Faille color above 80.3 threads ..... do..	— 82.00	703	3,925	3,270
Black goods trammed (cuit) ..... do..	— 56.4	6,192	14,208	11,095
Black goods, souple or dous (80.3 threads) ... do..	— 48.5	10,556	20,481	12,616
Black goods, souple or dous (over 80.3 threads) ..... No. pieces.	— 43.6	18,162	32,211	21,958
Umbrellas, all silk (taffetas) ..... do..	—100.00	.....	1,159	260
Fancy silks (taffetas) rayé and cadrillé, Louisine, all silk ..... No. pieces.	— 59.4	24,697	60,336	13,918
Taffetas (cottons (mixed) ..... do..	— 20.9	3,081	3,894	3,695
Thread goods:	— 51.00	103,087	202,073	116,673
Umbrellas, all silk (thread texture) .. No. pieces.	.....	2,935	.....	.....
Umbrellas, half silk (thread texture) ..... do..	.....	1,713	.....	.....
	+ 1.5	4,648	4,578	7,278
Cotton-mixed thread goods, black and colored satin tramé, cotton, &c., but not including umbrella stuffs ..... No. pieces.	— 32.5	48,649	72,100	109,086
Serges, surahs, all silk, uni, rayé, cadrillé, black and colored (not including umbrella stuffs) .. No. pieces.	+ 39.00	46,060	33,194	39,878
Other kinds of all silk dead goods (satin merveilleux, rhadamés, duchesse, satin or chiné, tricotine, ottoman, faille française, Pekin, armures, &c. (not including umbrella stuffs) ..... No. pieces.	+ 96.5	97,614	49,621	72,636
Cachenez, all silk (neck handkerchiefs, cravats, lustrine or bordered caffetas ..... No. pieces.	— 2.5	52,781	54,092	66,445
Jacquard goods:	.....	9,683	.....	.....
Cravat stuffs, &c ..... No. pieces.	.....	9,378	.....	.....
Cachenez façonné ..... do..	.....	8,289	.....	.....
Damassé ..... do..				
Raw woolen stuffs:	+52	27,350	18,004	13,721
Bolting cloth ..... No. pieces.	.....	6,733	.....	.....
Dyed in the piece ..... do..	.....	40,025	.....	.....
	+20.3	46,758	38,884	17,586
Velvets and plushes:				
Received ..... No. pieces.	—17.7	7,861		
Looms, reckoning one mechanical loom as equivalen to three hand-looms ..... number.		404,638	472,546	443,303
Employés and hands ..... do..	—20.4	33,195	41,737	39,851
Salaries and wages paid ..... francs.	.....	32,457	43,265	42,425
	—17.	14,853,143	17,906,527	16,353,127
SILK TWISTS.				
Silk-twisting establishments ..... number.	—15.75	16	19	22
Hands employed ..... do..	— 7.9	4,430	4,810	5,131
Weight of trams produced ..... kilograms..	—30.	133,569	190,746	154,196
Weight of sewing silk produced ..... do..	+ 6.9	99,912	93,490	73,301
Employés (not including "hands" as above) . number.	—33			
Salaries and wages paid				

Statistical report of the Silk Industry Association of the Canton of Zurich, &c.--Cont'd.

Items.	Difference in per cent. from 1883.	1885.	1883.	1881.
FLORET-SPINNING.				
Spinneries ..... number	----------	5	5	5
Hands employed ..... do	− 0.7	815	821	880
Weight of yarn produced ..... kilograms	+14.7	128,836	112,330	110,114
Employés (not including "hands" as above) .. number	−73.1	25	93	24
Salaries and wages paid ..... francs	+ 0.2	547,371	546,324	541,192
FINISHING ESTABLISHMENTS.				
Establishments ..... number	−25.	6	8	6
Hands employed ..... do	− 0.4	253	254	190
Employés (not including "hands" as above) .... do	+54.5	17	11	17
Pieces pressed ..... do	−13.1	154,629	177,980	95,106
Pieces finished ..... do	+10.2	113,784	103,263	118,419
Salaries and wages paid ..... francs	− 5.8	290,582	308,420	240,159
SILK-DYEING ESTABLISHMENTS, ZURICH.				
Organzines ..... kilograms	− 4.1	301,114	313,971	369,006
Trams ..... do	−14.4	327,007	382,165	384,905
..... do	−63.3	277	755	1,522
Trèges ..... do	+42.1	77,659	54,634	38,764
	−6.	706,057	751,525	794,197
RECAPITULATION.				
Firms employed in the silk industry of the Canton	−12.	119	136	134
Zurich ..... number	−22.5	39,084	50,396	49,816
Employés and hands ..... do	−16.	18,230,877	21,718,624	19,815,453
Salaries and wages paid ..... francs				

REMARK.—In regard to the wages paid, the fact must not be lost sight of that the greater portion of the hand-weavers only weaves in winter, and that in many cases the same winders are employed by two different concerns, and hence appear twice in the returns.

Silk undervaluations at Zurich, year ending September 30, 1886.

Period.	Original invoiced values.	Values as determined by experts.	Difference showing undervaluation.	Difference showing undervaluation.	Percentage of undervaluation.	Additional duty collectible on undervaluations at 50 per cent.
	Francs.	*Francs.*	*Francs.*			
Quarter ending—						
December 31, 1885	1,618,503 40	1,759,895 90	141,392 50	$27,288 75	8.53	$13,644 38
March 31, 1886	1,898,706 90	2,112,037 85	213,330 95	41,172 87	11.54	20,586 43
June 30, 1886	986,548 95	1,062,974 50	76,425 55	14,750 12	7.89	7,375 06
September 30, 1886	1,558,155 20	1,675,924 80	117,769 60	22,729 54	7.68	11,364 77
Total for year—						
September 30, 1885	6,061,914 45	6,610,833 05	548,918 60	105,941 28	8.9	52,970 64
September 30, 1884	8,129,102 50	9,005,532 80	876,430 30	169,151 03	10.53	84,575 52
	----------	----------	810,272 05	156,382 50	----------	78,191 25

***Prices of** grain, flour, and bread, during* 1885, *as per quotations from Zurich Grain Exchange.*

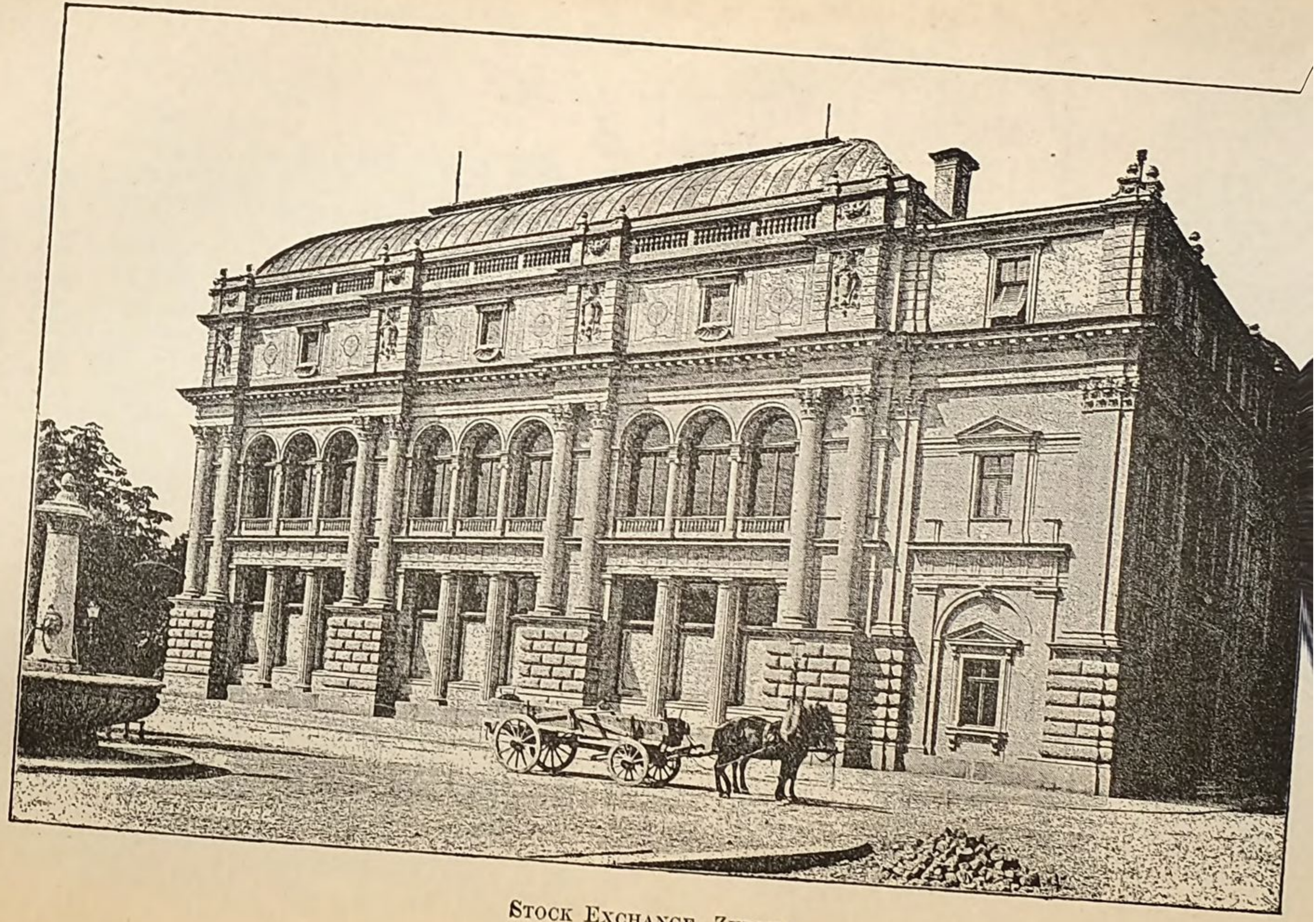
[Per 100 kilograms = 220 pounds.]

Months.	Wheat.	Barley.	Oats.	Corn.	Flour.	White bread.	Middling bread.
	Francs.	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Cent's.*	*Cent's.*
January 2	22.00	24.00	19.00	19.00	34.00	43	38
9	22.25	24.00	19.00	18.50	34.00	43	38
16	22.50	24.00	19.00	18.50	34.00	43	38
23	23.00	23.00	19.00	18.50	35.00	43	38
30	23.00	23.00	18.50	18.00	35.00	43	38
February 6	23.00	22.50	18.50	18.00	35.00	43	38
13	23.00	22.50	19.00	18.00	35.00	43	38
20	22.50	22.50	19.00	18.00	35.00	43	38
27	22.50	22.50	19.50	18.50	35.00	43	38
March 6	23.00	23.00	19.50	18.50	35.00	43	38
13	22.50	23.00	19.50	18.50	35.00	43	38
20	23.00	23.00	19.50	18.50	35.00	43	38
27	23.00	23.00	19.50	18.50	35.00	43	38
April 4	23.50	23.00	19.50	19.00	35.00	45	38
10	24.00	23.00	19.50	19.00	35.00	43	38
17	24.50	23.00	20.00	18.00	37.00	43	38
24	24.50	23.00	20.00	18.00	37.00	43	38
May 1	25.00	23.00	20.50	18.50	36.50	45	40
8	25.50	23.00	21.00	19.00	36.50	45	40
15	25.50	.....	21.00	19.00	36.50	45	40
22	25.00	.....	21.00	18.50	36.50	45	40
29	24.50	.....	20.50	18.50	36.50	45	40
June 5	24.00	.....	20.50	18.50	36.50	45	40
12	24.00	.....	20.50	18.50	36.50	45	40
19	24.50	.....	20.00	18.00	36.50	45	40
26	24.00	.....	19.50	18.00	35.00	45	40
July 3	23.50	.....	19.00	18.00	35.00	45	40
10	23.00	.....	19.00	17.50	34.00	45	40
17	23.00	.....	19.00	17.50	34.00	43	38
24	23.00	.....	19.00	17.00	34.00	43	38
31	22.50	.....	18.50	17.00	34.00	43	38
August 7	22.00	.....	18.00	17.00	34.00	43	38
14	21.50	.....	18.00	16.50	33.00	43	38
21	21.50	.....	18.00	16.50	33.00	43	38
28	21.50	.....	18.50	17.00	33.00	43	38
September 4	21.50	21.50	17.50	17.00	32.00	43	38
11	21.50	21.50	18.00	17.00	32.00	43	38
18	21.00	21.50	17.50	17.00	32.00	43	38
25	21.50	21.50	18.00	17.50	32.00	43	38
October 2	22.00	21.50	18.00	17.00	32.00	43	38
9	22.50	21.00	18.00	17.50	32.50	43	38
16	22.50	21.50	18.00	17.50	32.50	43	38
23	22.50	24.00	18.00	17.50	32.50	43	38
30	22.50	22.50	18.00	18.00	32.50	43	38
November 6	22.50	22.50	19.00	17.50	32.00	43	38
13	22.00	22.50	18.50	17.50	32.00	43	38
20	22.00	22.50	19.00	17.50	32.00	43	38
27	22.00	22.50	18.50	17.50	32.00	43	38
December 4	22.00	22.00	19.00	17.50	32.00	43	38
11	21.75	22.50	18.50	17.50	32.00	43	38
18	21.50	21.50	18.00	17.50	32.00	43	38
29	21.00	21.50	18.50	17.50	31.50	42	37
						43	37

Prices of exchange and leading stocks at Zurich, by months, during 1885.

Stocks, &c.	January 1.		February 1.		March 1.		April 1.		May 1.	
London, short sight	25.32 to	25.39	25.35 to	25.42	25.38 to	25.44	25.37 to	25.44	25.36 to	25.44
France, short sight	100.05	100.25	100.20	100.40	100.15	100.35	100.10	100.25	100.25	100.40
Germany, short sight	123.90	124.30	124	124.40	123.75	124.15	123.80	124.20	124.20	124.60
Milan, short sight	99.90	100.10	100	100.20	99.75	100.05	99.65	100	99.30	99.90
Vienna, short sight	205	206.50	204.50	206	204	206	204	206	200	202.50
4½ per cent. N. E. Railway bonds	100.5	102	101	103	101.7	103.1	105.5	101.9	100	101.8
5 per cent. Gotthard Railway bonds	100.6	105	100.6	103.7	100.3	105.5	100	105	100	105.5
4 per cent. Gotthard Railway bonds	97	98	99	99.3	98.5	99	98.2	98.5	96.9	97.1
Stock of Northeastern Railway:										
Original	304	306	303	305	316	319	307	310	274	276
Preferred	630	---	635	640	663	---	---	685	625	640
Stock of Gotthard Railway	530	535	550	555	551	556	530	536	510	522
Stock of Central Railway	458	464	450	455	462	---	450	457	440	446
Stock of United Swiss Railway:										
Original	328	332	330	333	336	337	330	336	303	305
Preferred	505	512	522	530	530	535	---	---	520	530
Stock of West Railway:										
Original	104	110	109	110	133	135	129	133	112	115
Preferred	---	---	---	---	375	390	350	365	315	---
Stock of Jura-Bern-Luzern Railway	356	362	356	363	357	362	350	357	335	347
Stock of Wädensweil-Einsiedeln Railway	95	100	105	115	110	120	115	120	120	140
Stock of Arth-Rigi Railway	117	120	129	133	138	140	135	137	120	125
Stock of Schweizer. Kreditanstalt	645	655	670	680	670	675	640	655	620	630
Stock of Bank in Winterthur	412	---	420	425	408	413	400	---	401	---

Stocks, &c.	June 1.		July 1.		August 1.		September 1.	
London, short sight	25.25 to	25.33	25.22 to	25.29	25.21 to	25.28	25.23 to	25.27
France, short sight	100.25	100.40	100.15	100.35	100.20	100.35	100.17	100.27
Germany, short sight	123.80	124.25	123.75	124.15	123.80	124.20	123.90	124.10
Milan, short sight	99.70	100.10	99.90	100.15	99.65	99.90	99.65	99.90
Vienna, short sight	202	204	202.50	204	201.50	203.50	202.25	203
4½ per cent. Northeastern Railway bonds	100	102	100	101.9	100.2	101.9	100	102
5 per cent. Gotthard Railway bonds	100	105.5	100	105.6	102.3	105.9	102	106
4 per cent. Gotthard Railway bonds	98.5	98.9	98.8	99	98.8	99	99.2	99.4
Stock of Northeastern Railway:								
Original	284	287	281	285	286	288	285	287
Preferred	682	692	685	---	680	690	670	680
Stock of Gotthard Railway	555	560	545	550	547	553	535	540
Stock of Central Railway	459	462	460	465	450	453	450	451
Stock of United Swiss Railway:								
Original	336	338	342	345	349	352	345	349
Preferred	535	538	512	518	518	520	520	524
Stock of West Railway:								
Original	122	125	118	120	117	118	116	118
Preferred	355	365	335	340	330	335	330	345
Stock of Jura-Bern-Luzern Railway	348	355	336	345	338	342	338	341
Stock of Wädensweil-Einsiedeln Railway	133	145	140	148	170	175	173	180
Stock of Arth-Rigi Railway	129	132	126	130	128	130	123	126
	640	642	645	655	640	646	650	657
				410	411	414	415	425



STOCK EXCHANGE, ZURICH.

Prices of exchange and leading stocks at Zurich, &c.—Continued.

Stocks, &c.	October 1.		November 1.		December 1.		December 31.	
London, short sight	25.22 to	25.26	25.22 to	25.25	25.23 to	25.26	25.26 to	25.30
France, short sight	100.05	100.15	100.05	100.15	100.15	100.25	100.10	100.25
Germany, short sight	124.05	124.30	123.95	124.15	124.05	124.20	124.12	124.27
Milan, short sight	99.70	99.90	99.50	99.80	99.70	99.90	99.80	100
Vienna, short sight	200	202	201.25	202.25	200.50	201.50	200.50	201.50
4½ per cent. Northeastern Railway bonds	100	101.7	100	101.5	101.4	...	101.3	101.5
5 per cent. Gotthard Railway bonds	102.3	106	102	106	102	106	101.7	105.5
4 per cent. Gotthard Railway bonds	99.1	99.3	99.1	98.3	99	99.2	99.5	99.8
Stock of Northeastern Railway:								
Original	280	282	263	265	273	276	279	281
Preferred	670	685	655	662	655	665	672	690
Stock of Gotthard Railway	529	533	536	543	564	570	564	570
Stock of Central Railway	447	450	446	448	444	448	448	...
Stock of United Swiss Railway:								
Original	340	341	333	335	325	327	321	324
Preferred	524	528	522	525	525	528	525	...
Stock of West Railway:								
Original	115	116	106	107	106	107	111	112
Preferred	336	...	325	...	...	350	335	345
Stock of Jura-Bern-Luzern Railway	330	337	329	335	324	330	335	338
Stock of Wädensweil-Einsiedeln Railway	220	230	229	231	264	267	260	270
Stock of Arth-Rigi Railway	116	118	96	98	95	98	99	103
Stock of Schweizer. Kreditanstalt	650	660	660	665	665	670	695	700
Stock of Bank in Winterthur	413	417	408	413	404	405	395	399

Condition and solvency of banking institutions in Canton Zurich, Switzerland, at the close of the year 1885.

Bank.	Capital stock.	Reserve fund.	Bonds.	Other liabilities.
	Francs.	*Francs.*	*Francs.*	*Francs.*
Bank in Zurich	6,000,000	510,000	1,912,600	10,435,642
Len & Co., Zurich	14,000,000	845,853	17,552,037	11,851,497
Leihkasse der Stadt Zurich	800,000	[1]212,000	1,495,000	6,105,422
Schweizer. Kreditanstalt, Zurich	20,000,000	2,000,000	14,125,474	57,000,542
Leihkasse im Wahlkreise Neuminster	380,000	66,000	1,122,320	1,535,992
Bank in Winterthur	15,000,000	[2]618,330	10,117,400	31,066,520
Handelsbank, Zurich	1,000,000	.....	401,915	670,085
Leihkasse, Wädensweil	1,000,000	[3]225,000	2,131,550	3,665,032
Hypothekarbank, Winterthur	8,000,000	487,000	13,814,400	7,561,671
Leihkasse, Enge	250,000	34,000	127,700	1,394,716
Züricher Kantonalbank (with branches)	12,000,000	2,900,000	60,396,400	63,891,575
Volksbank in Winterthur	[4]414,000	12,234	1,024,260	1,102,744
Leihkasse Winterthur	500,000	105,000	1,556,000	1,373,630

Bank.	Balances.	Profit statement, 1884.	Gross amount of profit and loss account.	Expenses.
	Francs.	*Francs.*	*Francs.*	*Francs.*
Bank in Zurich	18,858,242	2,651	380,061	160,881
Len & Co., Zurich	44,349,387	25,414	867,058	83,750
Leihkasse der Stadt Zurich	8,612,422	1,333	156,765	44,316
Schweizer. Kreditanstalt, Zurich	93,126,016	117,115	2,392,671	504,776
Leihkasse im Wahlkreise Neuminster	3,104,312	4,111	57,191	13,345
Bank in Winterthur	56,802,250	[5]—1,329,380	190,096	252,329
Handelsbank, Zurich	2,072,000	[5]—661,898	47,890	27,898
Leihkasse, Wädensweil	7,021,582	15,691	112,420	27,931
Hypothekarbank, Winterthur	29,863,071	61,139	507,181	[illegible]
Leihkasse, Enge	[illegible]			

Condition and solvency of banking institutions in Canton Zurich, &c.—Continued.

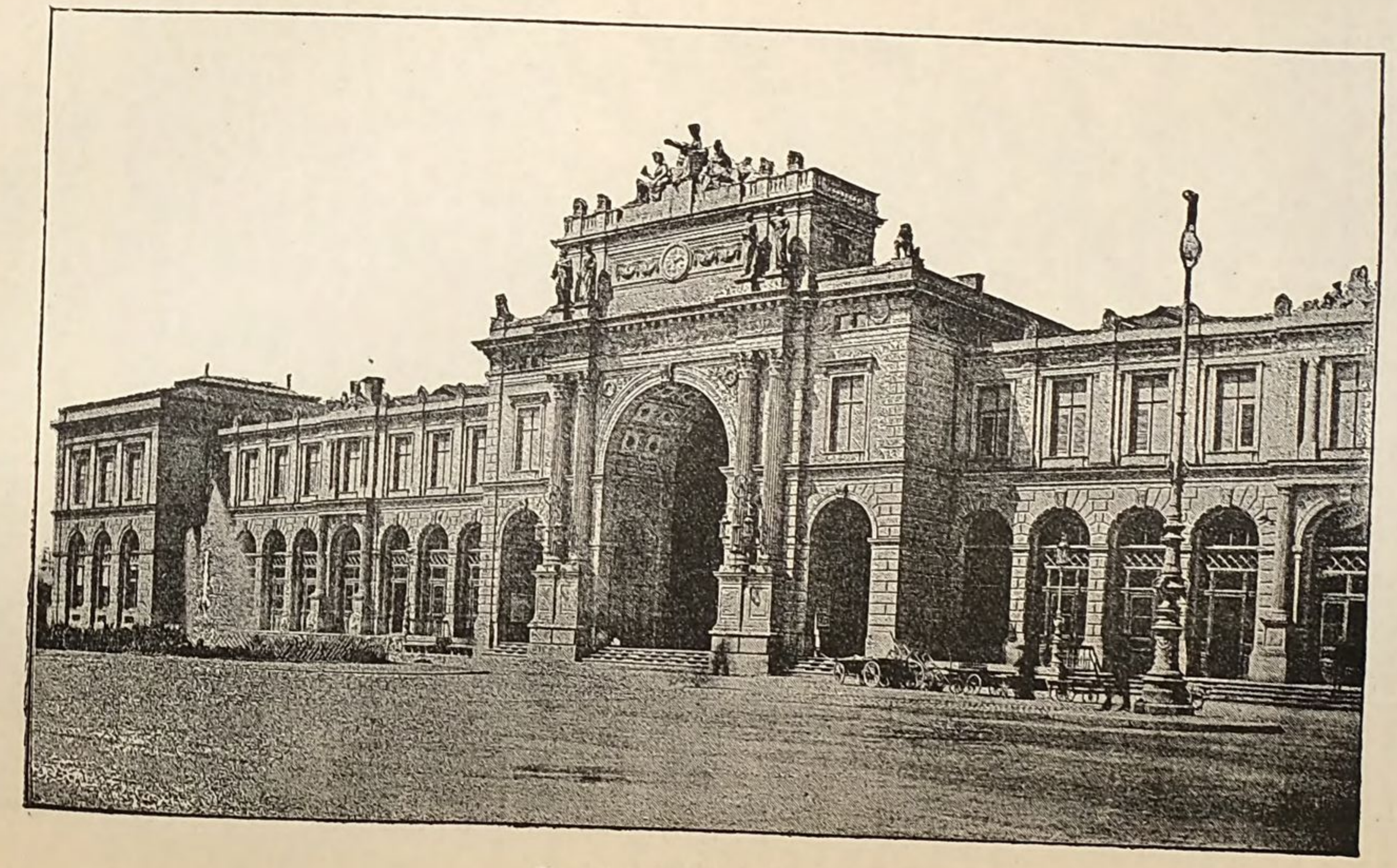
Bank.	Losses and accounts thrown out.	Dividends.		Deposit in reserve fund.	Profit brought forward for 1886.
	Francs.	*Francs.*	*Pr. ct.*	*Francs.*	*Francs.*
Bank in Zurich		240,000	4	20,000	1,831
Len & Co., Zurich	81,275	672,000	4⅘	29,867	25,580
Leihkasse der Stadt Zurich	55,068	56,000	7		2,714
Schweizer. Kreditanstalt, Zurich	391,355	1,500,000	7½		113,655
Leihkasse im Wahlkreise Neuminster	31,037	15,200	4		1,720
Bank in Winterthur	550,400				[1]—1,139,284
Handelsbank, Zurich					[1]—641,906
Leihkasse, Wädensweil	6,829	75,000	7½	5,000	13,351
Hypothekarbank, Winterthur	17,411	432,000	5⅖	25,000	62,488
Leihkasse, Enge	5,747	15,000	6	4,000	6,042
Züricher Kantonalbank (with branches)	234,873	525,000	4⅜	50,000	87,129
Volksbank in Winterthur		7,982	5	3,766	1,490
Leihkasse Winterthur	1,473	32,000	[2]6 98/100	3,000	2,976

[1] Loss brought forward.

[2] On an average capital stock of 158,333.33 francs.

Passenger and freight receipts on Swiss railroads, January 1 to September 30, 1886.

Railways.	Passengers.	Freight.	Total.
	Francs.	*Francs.*	*Francs.*
United Swiss	2,576,119	3,058,018	5,634,137
Northeastern	4,095,533	6,179,827	10,275,360
Central	3,402,257	4,768,835	8,171,092
Gotthard	2,649,603	4,581,789	7,231,392
Jura-Bern-Luzern	2,210,558	2,909,151	5,119,709
Western	4,487,407	4,863,455	9,350,862
Zurich, Zug, Luzern	792,336	694,327	1,486,663
Bötzben	520,565	1,235,835	1,756,400
Aargau Southern	139,111	691,197	830,308
Emmenthal	124,879	179,457	304,336
Toggenburger	116,500	89,065	205,565
Tässthal	101,457	104,465	205,922
Wädensweil-Einsiedeln	160,915	59,096	220,011
Bulle-Romont	49,272	115,548	164,820
Val de Travers	35,838	28,087	63,925
Jura-Neufchâtel	327,340	183,304	510,644
Bödeli	103,373	33,662	137,035
Wohlen-Bremgarten	7,104	6,585	13,689
Basler Connecting	34,910	141,777	176,687
Wald-Ruti	24,710	21,684	46,394
Rappersweil-Pfaffikon	12,297	4,936	17,233
Aargau-Luzern-Seethal	93,150	44,039	137,189
Vitznau-Rigi	306,633	22,435	329,068
Arth-Rigi	141,280	12,700	153,980
Netliberg	73,140	3,069	76,209
Appenzell	95,682	68,754	164,436
Lausanne-Echallens	42,085	12,019	54,104
Rorschach-Heiden	52,027	33,375	85,402
Waldenburger	36,605	13,437	50,042
Total	22,812,686	30,159,928	52,972,614
January 1 to September 30, 1885	22,959,105	29,707,076	52,666,181
Difference for 1886	—146,419	+452,852	+306,433



Railway Station, Zurich.

THE UNITED KINGDOM.

Annual report by Consul-General Waller, for the year 1886.

At the opening of this annual report it should, perhaps, be observed that the statistics it contains cover different periods. The English governmental statistics are, in most cases, for the calendar year of 1885, the consular statistics for the year ending September 30, 1886. This difference, though unfortunate, is quite unavoidable. Government statistics are not obtainable for eight or nine months after the time for which they are given. This delay, however, will in the future probably be lessened, for greater effort is being constantly made in this country as in our own to comply with a growing demand for the earliest possible publication of commercial statistics. Indeed, the importance of this kind of information (especially from consular sources) has, during the year, conspicuously engaged the attention of English economists, and been a frequent editorial topic in English newspapers. The frequent allusions in these discussions to the American system of consular reporting have always been of the most appreciative and complimentary character.

TRADE IN 1885–'86.

While the annual report for 1884–'85 showed that this country was then suffering from a general trade depression, greater than had been experienced since the year 1880, this report shows that less business was done in 1885–'86 than in 1884–'85, and was done with less profit. The shrinkage, however, was more in values than quantities. Nearly as much merchandise was exchanged in the one year as the other, but at reduced prices. The imports, though greater in volume, were in valuation about 5 per cent. less than in 1884–'85, while the falling off in the value of exports amounted to 8½ per cent. The slight increase in the volume of imports was largely confined to staple articles of food and the decrease in exports to manufactured products; that is, more foreign food was received and less foreign work done in 1885 than in the year previous. The depression in trade had been so long continued that employers who had hoped by increasing the volume of their business to make up for reduced percentages of profit were now compelled to lessen their productions and decrease the number and the wages of their employés. The natural result of this unfortunate condition became painfully apparent during the year in the augmented distress of the industrial portion of the people. The principal cause of the increased commercial distress of 1885 was undoubtedly the same overproduction from which our own country is now, it is hoped, beginning to recover. But to this was added the discouragement of a harvest, the pecuniary returns from which were even less than those of the year before, the feeling of commercial uncertainty produced by the disturbed state of affairs in the East, and by the occurrence in the autumn of an important general election. It is true that in the political campaign of this year it was often suggested on partisan plat-

never after the close of the canvass seriously repeated. The hope, which some entertained, that in the report of the royal commission appointed to investigate the trade depression a practical remedy would be suggested, has not been realized.

In reviewing the statistics of trade between the United Kingdom and the United States for 1885–'86, it will be observed that the ratio of exchange was nearly four to one in favor of our country; that is, the United States sent to Great Britain nearly four times as much as they received from her, the aggregate balance of trade being $322,424,960. The following remarkable percentages of all the importations into Great Britain of the necessaries of life were supplied from the United States: Ninety per cent. of its petroleum, 95 per cent. of its beef, 42½ per cent. of its refined sugar, 71 per cent. of its salt pork, 57 per cent. of its wheat, 76 per cent. of its flour, and over 80 per cent. of its cotton.

On the other hand, the statistics show that the United States received the following percentages of the total British exportations of these several articles: About 50 per cent. of its jute manufactures, about 55 per cent. of its native-grown wool, and about 80 per cent. of its tin.

Among the conspicuous increases in British importations from our country in 1885 were refined sugar and petroleum. The history of the trade in these staple productions is especially interesting. In four years the quantity of American petroleum received here has risen from 57,000,000 to 70,000,000 of gallons, and in valuation from $7,360,670 to $10,766,055. The late American improvement in the mode of transporting this article in bulk, in great tanks in ships constructed for the purpose, is one of the reasons for the substantial monopoly our country now sustains in this trade.

The increase in the importations of refined sugar in the last two years has been phenomenal. In 1883 the total import from the United States was 125,596 cwt.; in 1884, 1,044,553 cwt.; and in 1885, 2,228,254 cwt., a difference in valuation in two years of $9,453,070. This increase is undoubtedly due to the system of American drawbacks allowed on exportations of refined sugar—a system against which English refiners make bitter complaint, claiming, as I have shown in a special report on the subject, that American refiners are enabled by this drawback allowance to sell their sugar in this market for less than they can purchase the raw material.

As it appears in the tabulated statement, compiled at this consulate-general, the aggregate value of the exports from the United Kingdom to the United States during the year ending September 30, 1886, was $165,512,318.36, about the same as in 1882, and an increase over 1885 of $32,798,722.47, or nearly 20 per cent.

The only noteworthy specific increases in English exportations were, in wool, 4,000,000 pounds; in yarns, 5,500,000 pounds, and in cement, 185,600 cwt.

The calendar year of 1886 is now so near its close that its commercial [illegible] predicted. It opened with little promise, but so [illegible] improved, and from present [illegible] revival of

Aggregate imports into the United Kingdom in 1885.

Articles.	Quantities.	Values.
Animals:		
Oxen, bulls, cows, and calves ..... number.	373, 078	$35, 232, 385
Sheep and lambs..do..	750, 886	8, 125, 145
Bacon and hams ....cwt.	4, 058, 454	43, 428, 340
Beef.....do..	1, 141, 866	13, 990, 250
Bones (except whale-bones) .....tons.	73, 823	2, 186, 735
Brimstone... .....cwt.	720, 048	916, 865
Bristles .....lbs	2, 954, 740	2, 088, 220
Butter and butterine.....cwt.	2, 401, 373	57, 817, 540
Candles of all sorts..do..	64, 651	866, 315
Caoutchouc .....do..	180, 141	9, 908, 675
Cheese.....do..	1, 833, 832	20, 346, 760
China, porcelain, &c	146, 830	2, 592, 480
Chemical manufactures and products	.....	6, 781, 455
Clocks.....number.	785, 446	2, 044, 045
Cocoa.....lbs	23, 414, 892	4, 113, 130
Coffee .....cwt	1, 034, 562	16, 479, 975
Confectionery succades, cwt.....	362, 434	5, 008, 110
Corn :		
Wheat.....cwt.	61, 498, 864	120, 429, 565
Barley .....do..	15, 366, 160	22, 661, 930
Oats .....do..	13, 057, 189	21, 253, 535
Maize.....do..	31, 526, 735	42, 443, 475
Other kinds.....do..	5, 963, 743	9, 473, 345
Flour of wheat....do..	15, 832, 843	48, 252, 225
Flour, other kinds, do..	766, 929	1, 790, 200
Total.....	144, 012, 463	266, 304, 275
Cotton :		
Raw.....cwt.	12, 730, 503	182, 363, 060
Manufactures	.....	9, 895, 830
Drugs:		
Bark, Peruvian...cwt.	128, 104	4, 371, 660
Opium.....lbs.	710, 099	2, 280, 670
Unenumerated	.....	3, 949, 110
Dyeing and tanning stuffs:		
Cochineal, granilla and dust .....cwt	14, 228	426, 900
Cutch and gambier, tons	26, 312	2, 817, 825
Extracts	.....	1, 873, 965
Dyes from coal-tar	.....	2, 437, 295
Indigo .....cwt	94, 314	10, 599, 200
Madder, madder root, garancine, and munjeet.....cwt.	24, 721	184, 290
Sumac .....tons.	11, 157	814, 755
Valonia..... do..	29, 487	2, 325, 560
Unenumerated	.....	4, 360, 185
Dye-woods .....tons.	95, 540	2, 657, 630
Eggs.....M	1, 002, 788	14, 656, 185
Feathers, ornamental, lbs.....	751, 261	7, 470, 395
Fish..... .....cwt	1, 520, 570	9, 973, 070
Flax and hemp:		
Flax, dressed and undessed.....cwt.	1, 372, 211	14, 278, 990
Tow or codilla of flax and hemp.....cwt.	384, 311	2, 174, 045
Hemp and like substances (except jute) dressed and undressed..... cwt.	1, 451, 731	11, 131, 125
Jute .....do..	5, 713, 475	16, 203, 980
Flowers, artificial.....	.....	1, 491, 440
Fruits:		
Gutta-percha .....cwt.	53, 839	$1, 735, 665
Hair, goat, or wool. .lbs.	14, 371, 140	4, 763, 745
Hides, raw, dry, and wet, cwts	1, 230, 035	19, 351, 640
Hops .....cwt.	266, 952	5, 008, 740
Lace and articles thereof.	.....	5, 161, 555
Lard .....cwt.	871, 210	8, 032, 425
Leather .....lbs.	80, 846, 465	28, 844, 200
Leather gloves.....prs.	16, 434, 456	7, 512, 885
Meat:		
Unenumerated, salted or fresh .....cwt.	600, 644	7, 832, 365
Preserved, other than salted .....cwt	527, 759	7, 748, 980
Metals:		
Copper:		
Ore and regulus, tons	189, 573	14, 417, 990
Unwrought, part wrought and old copper .....tons.	43, 997	10, 165, 790
Iron ore.....do..	2, 822, 598	9, 785, 995
Iron in bars.....do..	122, 597	6, 100, 955
Iron and steel, wrought or manufactured .....cwt	3, 474, 935	11, 806, 920
Lead, pig and sheet.. .....tons	108, 012	6, 053, 840
Silver ore	.....	5, 426, 135
Tin, in blocks, ingots, bars, or slabs..cwt.	509, 322	10, 909, 455
Zinc:		
Crude, in cakes..tons.	60, 129	4, 240, 935
Manufactures, cwt	393, 282	1, 804, 415
Musical instruments....	.....	3, 647, 880
Nuts and kernels used for expressing oil therefrom .....tons.	55, 820	3, 653, 980
Oils:		
Fish .....do..	18, 380	2, 602, 060
Palm.....cwt.	905, 439	6, 089, 080
Cocoa-nut. ..... do..	185, 496	1, 381, 120
Olive .....tons.	24, 227	4, 906, 740
Seed .....do .	12, 940	1, 840, 650
Turpentine .....cwt.	308, 323	1, 939, 635
Oil-seed cake.....tons.	282, 960	10, 152, 165
Onions, raw..... bush.	3, 537, 616	2, 461, 640
Painters' colors and pigments.....	.....	3, 974, 240
Paper for printing or writing .....cwt.	260, 820	1, 950, 995
Paper—other (except hangings) .....cwt.	1, 124, 814	4, 870, 350
Petroleum .....galls	73, 873, 641	11, 447, 625
Pork .....cwt.	383, 636	3, 448, 655
Potatoes.....do..	2, 299, 934	3, 639, 030
Poultry, game, and rabbits	.....	3, 276, 985
Pyrites of iron or copper .....tons.	654, 521	6, 263, 115
Rags and paper-making materials:		
Rags ....tons	35, 470	2, 334, 640
Esparto, &c.....do..	299, 100	8, 949, 520
Rice.....cwt.	5, 588, 650	10, 928, 320
Rosin.....do..	1, 322, 354	1, 597, 930
Saltpeter..... .....do..	324, 737	1, 365, 370
Saltpeter cubic niter, cwt	2, 247, 785	5, 575, 160
Seeds:		
Clover and grass		

Aggregate imports into the United Kingdom in 1885—Continued.

Articles.	Quantities.	Values.
Silk manufactures:		
Broad stuffs		$27,982,270
Ribbons		11,335,120
Other		12,026,060
Total		51,343,450
Skins and furs:		
Goat, undressed, number	5,691,659	2,642,985
Seal, No.	580,718	2,299,005
Sheep and lamb, undressed, No.	8,525,662	5,171,715
Furs of all sorts, do.	24,831,958	4,559,550
Spices:		293,630
Cinnamon, lbs.	1,597,504	4,838,905
Pepper, do.	31,588,870	2,228,155
Of all other sorts, do.	20,216,999	
Spirits:		2,732,100
Rum, proof galls	6,877,581	6,212,120
Brandy, do.	2,783,056	1,725,305
Other, do.	2,094,881	
Total	11,755,518	10,669,525
Sugar:		
Refined and sugar candy, cwt.	5,329,046	24,178,710
Unrefined, do.	19,416,559	67,433,300
Sugar—Continued.		
Molasses, cwt.	392,875	$695,050
Tallow and stearine, do.	1,008,960	7,900,075
Tea, lbs	212,143,820	53,284,950
Teeth, elephant, sea-horse and sea-cow, cwt.	9,896	2,482,790
Tobacco:		
Manufactured, cigars and snuff, lbs.	4,247,257	6,188,725
Unmanufactured, do.	79,123,339	13,047,675
Watches, No.	554,137	3,132,410
Wine, galls.	14,629,738	25,631,960
Wood and timber:		
Hewn, loads.	1,935,854	23,184,985
Sawn or split, do.	4,235,508	47,990,005
Staves, do.	124,849	2,696,175
Mahogany, tons.	56,053	2,438,755
Wool—sheep, lamb, alpaca, and the llama tribe, lbs.	505,687,590	105,888,440
Woolen rags, tons.	32,642	3,409,975
Woolen and worsted yarn:		
Berlin wool and yarn used for fancy purposes, lbs.	1,255,425	1,107,060
Yarn for weaving, do.	14,632,653	8,871,995
Yeast, dried, cwt.	293,238	4,087,520

Principal articles of import into the United Kingdom in 1885 *compared with* 1884.

Articles.	Increase.	Decrease.
Animals:		
Oxen, bulls, cows, and calves, number.		52,429
Sheep and lambs, do.		194,156
Bacon and hams, cwt.	640,023	
Beef, do.	51,127	
Bones (except whalebone), tons.		8,468
Brimstone, cwt.		27,350
Bristles, lbs.	28,248	
Butter and butterine, cwt.		74,063
Candles, of all sorts, do.		26,328
Caoutchouc, do.		18,703
Cheese, do.		93,307
China, porcelain, &c., do.	3,274	
Clocks, number.	88,216	
Cocoa, cwt.	701,018	
Coffee, do.		103,093
Confectionery, do.	34,848	
Corn:		
Wheat, do.	14,192,708	
Barley, do.	2,413,145	
Oats, do.	135,323	
Maize, do.	6,746,271	
Other kinds, do.	218,765	
Flour of wheat, do.	737,542	
Flour of other kinds, do.		31,347
Cotton, raw, do.		2,887,079
Drugs:		
do	22,313	
Eggs, M.	9,179	
Feathers, ornamental, lbs		117,845
Fish, cwt.	184,148	
Flax and hemp:		
Flax, dressed and undressed, cwt.	32,400	
Tow or cordilla of flax and hemp, cwt.	30,326	
Hemp and like substances, dressed and undressed (except jute), cwt.	104,478	
Jute, do.	632,117	
Fruits:		74,461
Currants, do.	79,364	
Raisins, do.		587,796
Oranges and lemons, bush		
Raw, exclusive of nuts, bush	148,326	
Glass, of all kinds, cwt.	77,871	
Guano, tons.		23,089
Gum, of all sorts, cwt.	69,580	
Gutta percha, do.		8,874
Hair, goat's hair or wool, lbs.		2,534,886
Hides, raw, dry, and wet, cwts.	12,288	
Hops, do.	10,175	
Lard, lbs.	171,383	
Leather, prs.	3,970,494	
Leather gloves,		1,512,732

Principal articles of import into the United Kingdom in 1885, *&c.*—Continued.

Articles.	Increase.	Decrease.	Articles.	Increase.	Decrease.
Metals—Continued.			Silk:		
Iron ore.....tons.	91,769	.....	Knubs or husks and waste.....cwt.	.....	14,192
Iron bars.....do..	7,111	.....	Raw.....lbs.	.....	2,441,102
Iron and steel, wrought or manufactured.....cwt.	.....	227,505	Thrown.....do..	.....	93,648
Lead, pig and sheet, tons.....	.....	1,004	Skins and furs:		
Tin, in blocks, ingots, bars, and slabs....cwt.	.....	12,169	Goat, undressed.number.	1,121,334	.....
Zinc:			Seal.....do..	.....	132,914
Crude .....tons.	12,471	.....	Sheep and lamb, undressed.....number.	524,350	
Manufactures .....do..	.....	13,511	Furs of all sorts.number.	.....	1,784,306
Nuts and kernels used for expressing oil therefrom .....tons.	.....	13,511	Spices:		
			Cinnamon.....lbs.	.....	370,240
			Pepper .....do..	3,712,109	.....
Oil:			Of all other sorts.....do..	.....	1,419,527
Fish .....tuns.	891	.....	Spirits:		
Palm .....cwt.	64,427	.....	Rum .....gals.	.....	498,891
Cocoanut .....do..	.....	58,903	Brandy .....do..	404,080	.....
Olive .....tuns.	7,014	.....	Other.....do..	.....	21,835
Seed .....do..	412	.....	Sugar:		
Turpentine.....cwt.	.....	154,316	Refined sugar candy, cwt.....	1,065,173	.....
Oil-seed cake..... ..tons.	13,120	.....	Unrefined .. ..cwt	.....	206,120
Onions, raw .....bush.	500,210	.....	Molasses.....do..	.....	19,219
Paper:			Tallow and stearine ...cwt.	.....	105,928
For printing or writing, cwt.....	52,410	.....	Tea .....lbs.	.....	1,733,939
Other (except hangings), cwt.....	.....	114,111	Teeth, elephant's, sea-cow, and sea-horse.....cwt.	.....	204
Petroleum .....gals.	20,897,852	.....	Tobacco:		
Pork .....cwt.	46,111	.....	Unmanufactured.....lbs.	1,081,921	.....
Potatoes.....do...	.....	144,226	Manufactured, and cigars, pounds.....	25,582,932	.....
Pyrites of iron or copper, tons.....	91,448	.....	Watches .....number.	37,321	.....
Rags and paper-making materials:			Wine .....gals.	.....	476,533
Rags.....tons.	.....	763	Wood and timber:		
Esparto and other materials .....tons.	38,556	.....	Hewn .....loads.	.....	18,076
Rice ..... cwt.	.....	990,808	Sawn or split .....do..	186,044	
Rosin ..... do..	.....	153,601	Staves.....do..	.....	10,099
Saltpeter .....do..	.....	8,901	Mahogany .....tons.	.....	6,783
Saltpeter cubic niter...do..	216,837	.....	Wool, sheep, lamb, alpaca, and the llama tribe, pounds.....	.....	20,839,071
Seeds:			Woolen rags .....tons	1,620	.....
Clover and grass.....cwt.	25,439	.....	Woolen and worsted yarn:		
Cotton .....tons.	57,558	.....	Berlin wool and yarn used for fancy purposes..lbs.	160,805	.....
Flax or linseed.....qrs.	250,469	.....	Yarn for weaving....do..	1,290,968	.....
Rape .....do..	215,570	.....	Yeast, dried .....cwt	10,722	.....

Exports from the United Kingdom to the United States in 1885 compared with 1884.

PRODUCE AND MANUFACTURES OF THE UNITED KINGDOM.

Articles.	Value.	Increase over 1884.	Decrease from 1884.
Alkali	$5,131,805	$69,135	$175,880
Animals	375,225		532,300
Apparel, &c	1,367,685		225,485
Arms and ammunition	616,870		111,140
Beer and ale	709,820		277,030
Bleaching materials	1,424,145		35,170
Books	1,316,640	86,355	
Cement	629,450	204,410	
Chemicals and dye-stuffs	1,978,090		110,060
Coal and fuel	764,925		2,097,680
Cottons, all kinds	11,355,595		38,260
Earthen and china ware	3,403,085		225,480
Glass manufactures	824,210		149,465
Hardware and cutlery	1,461,805		56,075
Jute:			
Yarn	488,395		1,333,045
Manufactures	4,209,640	51,985	
Leather	966,800		89,935
Linens	11,421,160		295,725
Machinery	1,452,430		2,879,590
Metal, wrought and unwrought	21,987,925		66,385
Painters' materials	483,780	17,185	
Paper, all sorts	342,130		23,005
Pickles, vinegar, &c	890,910		732,125
Rags, for paper	2,024,345	25,740	
Salt	1,152,930		448,685
Silk manufactures	2,937,915		400,870
Skins and furs	2,829,400	12,120	
Stationery (not paper)	374,980		1,170,055
Telegraphic apparatus	65,585		2,604,380
Wool, raw and manufactured	15,970,535	986,265	
All other articles	11,010,895		12,164,075
Total	109,969,105		

FOREIGN AND COLONIAL PRODUCE.

Caoutchouc	$1,106,670		$498,880
Chemicals	518,685	$88,185	
Coffee	169,950		173,125
Cotton, raw	546,060		546,935
Drugs	2,097,530	546,435	
Dyeing or tanning stuffs	1,685,565	110,075	
Feathers	807,375		1,415,935
Flax	353,620	42,090	
Fruits	1,123,490		59,130
Gums	986,390	82,480	
Hair	913,805	466,315	
Hemp	1,258,480	581,820	
Hides, raw	1,660,190	306,425	
Leather	1,003,840	568,570	
Metals	5,685,285	283,795	
Precious stones	662,040		568,425
Rags and materials for paper making	1,483,455	156,350	
Rice	528,100		199,680
Seeds	293,995		279,420
Skins and furs	2,546,590	669,655	
Spices	1,637,145	446,335	
Sugar, unrefined	433,455		325,185
Tea	1,159,340		268,740
	9,232,970	3,525,180	
	7,609,815	406,000	
		3,944,355	

Imports into the United Kingdom from the United States in 1885 compared with 1884.

Articles.	Values.	Increase over 1884.	Decrease from 1884.
Animals, live	$15,725,250	----------	$1,308,800
Bacon and hams	32,391,810	$2,002,200	----------
Beef, salt and fresh	13,306,500	240,885	----------
Butter and butterine	1,587,635	----------	155,145
Caoutchouc	132,125	----------	149,685
Cheese	9,325,820	----------	3,072,720
Clocks	487,135	----------	46,885
Coffee	473,545	91,540	----------
Copper	4,992,530	207,380	----------
Corn, flour and meal, all sorts	113,927,930	15,344,740	----------
Cotton, raw and manufactured	134,226,410	----------	21,210,510
Fish	2,547,080	----------	192,080
Fruit	2,212,650	446,930	----------
Hides, raw	428,330	----------	32,235
Hops	2,110,015	----------	1,527,255
Iron and steel manufactures	862,135	----------	128,425
Lard	7,248,830	336,185	----------
Leather	7,500,080	306,620	----------
Manures and phosphates	1,671,780	175,990	----------
Meat, salt, fresh, and preserved	3,472,700	----------	111,185
Mutton, fresh	460,775	----------	3,235
Oils	3,151,815	----------	725,020
Oil-seed cake	7,212,200	235,220	----------
Petroleum	10,766,055	2,662,220	----------
Pork, salt	1,668,475	129,890	----------
Rosin	1,503,825	----------	364,115
Seeds, clover and grass	324,360	----------	603,395
Silver ore	1,211,350	345,830	----------
Skins and furs	2,699,995	563,195	----------
Sugar, refined	10,354,920	5,083,995	----------
Sugar, unrefined	169,485	77,955	----------
Sugar, molasses	502,625	----------	130,815
Tallow and stearine	1,972,945	----------	1,193,495
Tobacco	12,668,830	5,861,675	----------
Wood and timber	8,113,790	----------	1,562,760
Wool	120,610	15,045	----------
All other articles	14,821,420	----------	----------
Total	434,394,065	21,001,360	----------

Trade between the United States and Great Britain and Ireland for ten years.

Year.	Exports to the United States.			Imports from the United States.
	Produce and manufactures of Great Britain and Ireland.	Foreign and colonial produce and manufactures.	Total.	
1876	$84,167,585	$16,965,550	$101,133,135	$379,495,040
1877	81,884,070	17,545,395	99,429,465	389,129,865
1878	72,760,380	14,899,140	87,659,520	445,730,850
1879	101.609,950	25,983,995	127,593,945	459,091,475
1880	154,279,355	35,491,605	189,770,690	535,406,300
1881	148,981,490	34,933,745	183,915,235	516,039,145
1882	154,850,735	38,692,480	193,543,215	441,763,065
1883	136,864,840	46,797,690	183,662,530	496,194,800
1884	122,133,180	41,559,485	163,692,665	431,392,705
1285	109,969,105	45,503,840	155,472,945	432,394,065

...e United Kingdom of Great Britain and Ireland to the United States of America for the year ending September 30, 1886, together with value for preceding year also column exhibiting decrease or increase for period named.

...rict.	Staple (if any).	1886.	1885.	Percentage of decrease.	Decrease.	Percentage of increase.	Increase.
.....	Linens	$8,391,933 19	$7,800,096 65	.....	.....	7½	$591,836 54
.....	Hardware, cutlery, &c	3,218,881 93	2,875,388 26	.....	.....	11¾	343,493 67
.....	Stuffs	18,319,924 26	11,565,989 95	.....	.....	58¼	6,753,934 31
.....	Tin-plates and chemicals	463,995 00	399,655 00	.....	.....	16	64,340 00
.....	Tin and terne plates	2,378,530 83	3,785,602 65	37	$1,407,062 82	.....	.....
.....	Hides and feathers	256,836 22	65,254 28	.....	.....	293½	191,581 94
.....	Ale and porter	1,032,404 87	781,782 04	.....	.....	32	250,622 83
.....	Burlaps and linens	6,858,574 36	6,335,495 71	.....	.....	8	523,078 65
.....	Linens and cottons	1,659,097 14	1,598,739 89	.....	.....	3½	60,337 25
.....	China-clay	59,043 13	98,655 54	40	39,612 41	.....	.....
.....	Thread, cottons, and linens	6,549,455 96	5,285,319 35	.....	.....	23¾	1,264,136 61
.....	Tin-plates and woolens	140,753 74	154,930 79	9	14,177 05	.....	.....
.....	Beer colors, &c	249,066 87	433,112 51	42½	184,045 64	.....	.....
.....	Woolens and cottons	5,179,506 35	3,884,045 99	.....	.....	33¼	1,295,460 36
.....	Books	843,961 62	895,903 50	5¾	51,941 88	.....	.....
.....	Tin-plates, chemicals, &c	33,532,938 68	26,677,507 59	.....	.....	25½	6,855,431 09
.....	Metals, &c	51,632,923 19	37,323,547 79	.....	.....	38¼	14,309,375 40
.....	Whisky	4,235 91	1,401 35	.....	.....	202¼	2,834 56
.....	Cottons	11,281,578 09	10,583,050 34	.....	.....	6½	698,527 75
.....	Chemicals, sodas, &c	1,940,896 69	1,786,211 85	.....	.....	8½	154,684 84
.....	Lace goods, &c	5,731,355 84	5,288,572 34	.....	.....	8¼	442,783 50
.....	Live stock	97,866 35	90,727 70	.....	.....	7¾	7,138 65
.....	Hardware and cutlery	2,546,092 71	2,186,745 21	.....	.....	16¼	359,347 50
.....	Live stock	6,437 48	5,974 05	.....	.....	7¾	463 43
ne	Earthenware	3,136,018 95	2,809,865 56	.....	.....	11½	326,153 39
.....	.....	165,512,318 36	132,713,595 89	.....	1,696,839 80	20	34,495,562 27

SUMMARY.

g September 30, 1886	$165,512,318 36	Increase in 20 consulates	$34,495,562 27
g September 30, 1885	132,713,595 89	Decrease in 5 consulates	1,696,839 80
	32,798,722 47	Net increase	32,798,722 47

Value of declared exports from the various consular districts of the United Kingdom of Great Britain and Ireland to the United States of America, from October 1, 1876, *to September* 30, 1886, *compiled at the consulate-general, London.*

[Year ending September 30.]

Years.	Belfast.	Birmingham.	Bradford.	Bristol.	Cardiff.
1877	$6,640,559 13	$2,842,871 05	$7,311,101 75	$218,222 00	$102,271 70
1878	6,243,226 62	2,309,513 42	5,693,799 37	166,648 20	296,903 74
1879	7,328,156 19	2,435,271 89	5,955,287 85	164,552 24	607,331 57
1880	9,415,832 81	4,920,433 58	10,731,646 49	157,177 01	1,824,812 07
1881	7,856,100 68	4,376,611 92	7,091,394 18	137,978 33	2,148,560 56
1882	9,412,627 07	5,178,118 16	8,385,638 20	166,304 00	2,368,766 84
1883	8,136,805 43	4,719,827 19	9,463,444 93	174,567 33	1,672,831 14
1884	6,842,100 73	3,977,812 16	13,601,042 51	202,126 51	4,373,767 29
1885	7,800,096 65	2,875,388 26	11,565,989 95	399,655 00	3,785,602 65
1886	8,391,933 19	3,218,881 93	18,319,924 26	463,995 00	2,378,539 83
	78,067,438 50	36,854,729 56	98,119,269 49	2,251,225 62	19,559,387 39

Year.	Cork.	Dublin.	Dundee.	Dunfermline.	Falmouth.
1877	$40,845 71	$550,311 80	$4,825,588 12	(*)	$53,451 77
1878	53,203 07	583,162 66	4,641,560 47	$1,099,002 88	55,036 64
1879	83,016 01	702,218 46	5,112,470 82	1,443,045 32	67,253 47
1880	308,024 93	1,029,415 77	8,224,285 20	2,160,227 76	132,469 40
1881	179,255 02	1,172,754 17	7,381,189 83	1,889,286 45	76,517 79
1882	124,517 28	976,981 35	7,892,926 82	2,404,535 63	108,013 53
1883	86,395 52	903,478 07	7,917,358 37	2,139,489 62	53,684 43
1884	71,631 23	937,414 91	7,666,359 66	1,846,596 28	104,732 18
1885	65,254 28	781,782 04	6,335,495 71	1,598,759 89	98,655 54
1886	256,836 22	1,032,404 87	6,858,574 36	1,659,097 14	59,043 13
	1,268,979 27	8,669,924 10	66,855,809 36	16,240,040 97	808,857 88

Year.	Glasgow.	Gloucester.	Hull.	Leeds.	Leith.
1877	$4,589,156 85	(†)	(‡)	$1,704,327 58	$1,671,257 79
1878	4,249,000 00	(†)	(‡)	1,411,370 59	611,810 09
1879	5,298,345 00	(†)	$131,683 09	1,556,965 96	368,939 12
1880	9,219,927 88	$195,880 38	547,247 23	3 615,338 09	548,321 12
1881	9,723,231 70	256,572 62	272,353 48	2,839,801 07	587,578 90
1882	10,219,715 60	143,991 74	384,164 81	4,776,336 87	735,938 67
1883	9,662,722 89	198,171 52	371,324 57	4,508,734 53	906,710 92
1884	7,381,874 93	212,375 36	459,468 67	5,377,193 16	993,368 76
1885	5,285,319 35	154,930 79	433,112 51	3,884,045 99	895,903 50
1886	6,549,455 96	140,753 74	249,066 87	5,179,506 35	843,961 62
	72,178,750 16	1,302,676 15	2,848,421 23	34,853,620 19	8,163,790 49

Year.	Liverpool.	London.	Londonderry.	Manchester.	Newcastle-on-Tyne.
1877	$22,585,056 66	$22,728,837 83	$782 16	$9,876,768 09	$640,836 16 §107,863 09
1878	19,084,235 15	19,416,581 34	1,797 66	8,176,886 53	793,289 86
1879	23,062,247 11	24,420,872 05	2,133 92	8,814,443 92	1,018,306 44
1880	42,589,566 16	62,681,120 18	2,610 03	15,236,381 28	2,328,551 69
1881	29,119,805 55	50,549,973 44	1,552 93	12,148,327 29	2,635,311 35
1882	34,781,520 69	54,240,152 97	169,918 81	14,383,407 28	2,994,655 69
1883	32,594,517 92	48,015,188 59	2,816 81	14,564,425 85	2,459,253 23
1884	28,728,569 10	46,003,504 86	2,016 97	13,479,474 91	2,202,483 25
1885	26,677,507 59	37,323,547 79	1,401 35	10,583,050 34	1,786,211 85
1886	33,532,938 68	51,632,923 19	4,235 91	11,281,578 09	1,940,896 69
	292,755,964 61	417,012,702 24	189,266 55	118,544,743 58	18,907,659 30

Value of declared exports from the various consular districts of the United Kingdom of Great Britain and Ireland to the United States of America, &c.—Continued.

[Year ending September 30.]

Year.	Nottingham.	Plymouth.	Sheffield.	Southampton.	Tunstall.
1877	(*)	$21,071 69	$5,720,331 20	.....	$2,428,483 17
1878	$3,062,216 71	21,473 92	2,140,443 49	†$44,536 28	2,604,681 77
1879	4,421,233 42	10,611 34	2,723,943 18	64,189 22	2,687,476 73
1880	7,137,796 16	38,154 94	5,189,692 84	34,532 49	3,703,844 73
1881	8,467,304 18	59,130 95	5,955,769 89	43,938 87	3,815,760 65
1882	9,774,548 65	89,117 46	6,217,748 54	90,365 87	3,419,833 88
1883	8,381,569 89	152,014 43	3,947,766 91	99,396 63	4,075,490 89
1884	6,536,813 48	245,087 15	3,069,771 88	148,558 88	2,850,551 83
1885	5,288,572 34	90,727 70	2,186,745 21	5,974 05	2,809,865 56
1886	5,731,355 84	97,866 35	2,546,092 71	6,437 48	3,136,018 95
	58,801,410 67	825,255 93	39,698,305 85	537,929 77	31,532,008 16

* Hitherto an agency of the Sheffield consulate.
† This amount represents the exports for the September quarter of 1878. Southampton having only at the commencement of that quarter been erected into a consulate, the four quarters of the year 1877 and the first three quarters of 1878 were embodied in the returns of the consulate-general at London, of which Southampton was during that period an agency.

SUMMARY.

Gross total for the year ending September 30, 1877	{ $94,552,132 21 *107,863 09	$94,659,995 30
1878		82,760,380 46
1879		98,479,994 32
1880		191,973,290 22
1881		158,786,061 80
1882		179,439,846 41
1883		165,207,987 61
1884		157,314,696 65
1885		132,713,595 89
1886		165,512,318 36
Gross total for the ten years ending September 30, 1886		1,426,848,167 02

* These figures represent the amount of exports from the Newcastle agencies not embodied in the Consular Report of 1877.

Recapitulation for the ten years ending September 30, 1886.

Consulates.	Amount.	Consulates.	Amount.
London	$417,012,702 24	Dunfermline*	$16,240,040 97
Liverpool	292,755,964 61	Dublin	8,669,924 10
Manchester	118,544,743 58	Leith	8,163,790 49
Bradford	98,119,269 49	Hull†	2,848,421 23
Belfast	78,067,438 50	Bristol	2,251,225 62
Glasgow	72,178,750 16	Gloucester†	1,302,676 15
Dundee	66,855,809 36	Cork	1,268,979 27
Nottingham*	58,801,410 67	Plymouth	825,255 93
Sheffield	39,698,305 85	Falmouth	808,857 88
Birmingham	36,854,729 56	Southampton	537,929 77
Leeds	34,853,620 19	Londonderry	189,266 55
Tunstall	31,532,008 16	Total	1,426,848,167 02
Cardiff	19,559,387 39		
Newcastle	18,907,659 30		

[illegible] of exports for the nine years ending September 30, [illegible] from Sheffield and Leith, of which [illegible] September 30,

Recapitulation for the year ending September 30, 1886.

Consulates.	Amount.	Consulates.	Amount.
London	$51,632,923 19	Dunfermline	1,659,097 14
Liverpool	33,532,938 68	Dublin	1,032,404 87
Bradford	18,319,924 26	Leith	843,961 62
Manchester	11,281,578 09	Bristol	463,995 00
Belfast	8,391,933 19	Cork	256,836 22
Dundee	6,858,574 36	Hull	249,066 87
Glasgow	6,549,455 96	Gloucester	140,753 74
Nottingham	5,731,355 84	Plymouth	97,866 35
Leeds	5,179,506 35	Falmouth	59,043 13
Birmingham	3,218,881 93	Southampton	6,437 48
Tunstall	3,136,018 95	Londonderry	4,235 91
Sheffield	2,546,092 71		
Cardiff	2,378,539 83	Total	165,512,318 36
Newcastle	1,940,896 69		

Value of declared exports from the various consular districts of the United States of America in the United Kingdom of Great Britain and Ireland for the four quarters of the year ending September 30, 1885.

City.	Quarters ending—				Total for the year.
	Dec. 31, 1884.	Mar. 31, 1885.	June 30, 1885.	Sept. 30, 1885.	
Belfast	$1,719,705 73	$2,309,654 71	$1,539,410 05	$2,240,326 16	$7,800,096 65
Birmingham	713,908 51	627,063 60	660,581 19	873,834 96	2,875,388 26
Bradford	2,562,859 32	2,376,021 34	2,817,004 74	3,810,104 55	11,565,989 95
Bristol	48,139 00	84,808 00	124,269 00	142,439 00	399,655 00
Cardiff	1,214,225 59	846,428 92	771,134 25	953,814 49	3,785,602 65
Cork	21,681 10	12,664 75	9,324 96	21,583 47	65,254 28
Dublin	194,059 91	132,652 78	196,606 61	258,462 44	781,782 04
Dundee	1,784,380 79	1,570,416 29	1,435,445 01	1,545,253 62	6,335,495 71
Dunfermline	337,124 29	447,789 11	267,772 44	546,074 05	1,598,759 89
Falmouth	18,261 58	39,163 38	15,998 71	25,231 87	98,655 54
Glasgow	1,514,801 61	1,331,897 79	1,046,310 88	1,392,309 07	5,285,319 35
Gloucester	39,073 34	44,522 36	26,461 23	44,873 86	154,930 79
Hull	109,642 79	121,051 10	126,219 99	76,198 63	453,112 51
Leeds	873,578 70	929,380 53	846,536 83	1,234,549 93	3,885,045 99
Leith	221,704 38	209,310 89	176,594 90	288,293 33	895,903 50
Liverpool	6,663,424 07	6,653,770 62	6,306,475 76	7,053,837 14	26,607,507 59
London	8,082,851 20	9,047,644 66	8,747,533 16	11,445,518 77	37,323,547 79
Londonderry	405 15	229 83	221 78	544 59	1,401 35
Manchester	2,316,881 53	2,841,851 45	2,430,238 15	2,994,079 21	10,583,050 34
Newcastle	435,266 66	451,397 50	487,700 13	411,847 56	1,786,211 85
Nottingham	1,108,875 76	1,589,472 33	953,385 49	1,636,838 76	5,288,572 34
Plymouth	37,146 13	24,870 77	11,959 47	16,751 33	90,727 70
Sheffield	623,887 77	477,725 04	503,495 38	581,637 02	2,186,745 21
Southampton	1,542 54	295 76	1,862 76	2,272 99	5,974 05
Tunstall	610,048 70	620,538 05	728,638 35	850,640 46	2,809,865 56
Total	31,253,476 15	32,781,620 96	30,231,181 52	38,447,317 26	132,713,595 89

Value of the declared exports at the various consular districts of the United States in the United Kingdom for the four quarters of the year ending September 30, 1886, and compared with the corresponding quarter of the previous year (see foregoing tabular statement).

City.	Quarters ending— Dec. 31, 1885.	Mar. 31, 1886.	June 30, 1886.	Sept. 30, 1886.	Total for the year.
Belfast	$2,055,668 83	$2,331,411 32	$1,547,447 20	$2,457,405 84	$8,391,933 19
Birmingham	762,091 62	745,445 91	778,912 80	932,431 60	3,218,881 93
Bradford	4,544,413 74	4,770,700 56	4,189,412 64	4,815,397 32	18,319,924 26
Bristol	217,939 00	73,309 00	81,621 00	91,621 00	463,995 00
Cardiff	858,608 12	190,790 06	728,897 24	600,244 41	2,378,539 83
Cork	57,632 61	52,011 37	37,757 85	109,434 39	256,836 22
Dublin	268,347 22	264,253 80	253,354 00	246,449 85	1,032,404 87
Dundee	1,657,454 07	1,742,010 32	1,589,582 59	1,869,527 38	6,858,574 36
Dunfermline	400,817 74	451,220 72	290,830 47	516,228 21	1,659,097 14
Falmouth	25,553 18	14,558 55	9,621 98	9,309 42	59,043 13
Glasgow	1,839,711 06	1,526,311 30	1,310,819 31	1,872,614 29	6,549,455 96
Gloucester	39,486 70	42,861 12	31,243 44	27,162 48	140,753 74
Hull	72,687 65	63,531 15	62,902 59	49,945 48	249,066 87
Leeds	1,079,963 84	1,263,727 22	1,218,782 08	1,617,033 21	5,179,506 35
Leith	203,523 44	219,912 07	190,814 27	229,711 84	843,961 62
Liverpool	8,517,940 85	8,753,048 90	9,005,612 80	7,256,336 13	33,532,938 68
London	11,884,845 23	12,634,094 38	12,328,773 76	14,785,209 82	51,632,923 19
Londonderry	461 54	3,023 86	649 29	101 22	4,235 91
Manchester	2,080,386 79	3,324,990 89	2,520,595 70	3,355,604 71	11,281,578 09
Newcastle	337,613 96	624,924 02	532,247 29	446,111 42	1,940,896 69
Nottingham	1,301,196 68	1,742,190 78	1,056,061 93	1,631,906 45	5,731,355 84
Plymouth	12,664 47	20,396 00	26,272 77	38,533 11	97,866 35
Sheffield	614,616 83	593,573 93	629,938 79	707,963 16	2,540,092 71
Southampton	1,281 94	2,660 74	1,778 69	716 11	6,437 48
Tunstall	649,140 64	780,500 93	833,961 80	872,415 58	3,136,018 95
Total	39,484,047 75	42,231,458 90	39,257,397 28	44,539,414 43	165,512,318 36

December 31, 1885	$39,484,047 75	September 30, 1886	44,539,414 43
December 31, 1884	31,253,476 15	September 30, 1885	38,447,317 26
Increase	8,230,571 60	Increase	6,092,097 17
March 31, 1886	42,231,458 90		
March 31, 1885	32,781,620 96		
Increase	9,449,837 94		
June 30, 1886	39,257,397 28		
June 30, 1885	30,231,181 52		
Increase	9,026,215 76		

Increase December quarter, $8,230,571 60, or nearly 21 per cent.
Increase March quarter, $9,449,837 94, or more than 22 per cent.
Increase June quarter, $9,026,215 76, or nearly 23 per cent.
Increase September quarter, $6,092,097 17, or nearly 13¾ per cent.
Total increase for year ending September 30, 1886, $32,798,722 47, or nearly 20 per cent.

Value of declared exports from the consular district of London, England, to the United States during the four quarters of the year ending September 30, 1886.

Articles.	Quarters ending— Dec. 31, 1885.	Mar. 31, 1886.	June 30, 1886.	Sept. 30, 1886.	Total.
Beer, wine, and spirits	$184,947 38	$186,403 49	$185,506 09	$99,740 14	$656,597 10
Books and stationery	347,895 34	312,098 87	355,856 10	316,310 62	1,332,160 93
Chemicals, soda, &c	1,079,233 33	396,444 01	242,638 14	128,066 39	1,846,381 87
Clothing	28,498 00	60,872 32	37,351 77	55,767 17	182,489 26
Diamonds	506,570 00	863,828 79	822,065 28	1,348,117 12	3,540,581 19
Dry goods, silks, woolens, cottons, laces, &c	791,304 97	1,335,220 90	478,638 50	1,283,577 82	3,888,742 19
Feathers	136,800 63	136,841 44	234,271 97	231,772 98	739,687 02
Hops	13,057 84	2,956 99	1,241 06	123,562 71	140,818 60
	2,216,469 45	3,206,967 49	4,324,092 42	2,813,390 91	12,560,920 27
		1,213,870 98	1,257,813 19	718,720 78	4,469,370 69
			16,692 75	25,693 43	72,594 55
				24,476 30	426,375 95

Value of declared exports from this consulate-general to the United States for the years 1885 and 1886, also increase or decrease of value in the articles named.

Articles.	1885.	1886.	Increase.	Decrease.	Per cent. of increase.	Per cent. of decrease.
Beer, wines, and spirits	$429,070 15	$656,597 10	$227,526 95		53 +	
Books and stationery	1,474,894 53	1,332,160 93		$142,733 60		9½+
Chemicals, soda, and drugs	1,700,885 79	1,846,381 87	145,496 08		8½+	
Clothing	207,766 67	182,489 26		25,277 41		12 +
Diamonds	2,356,838 85	3,540,581 19	1,183,742 34		50 +	
Dry goods	4,010,919 29	3,888,742 19		122,177 10		3 +
Feathers	766,324 32	739,687 02		26,637 30		3¼+
Hops	13,790 52	140,818 60	127,028 08		921 +	
Iron, steel, &c	8,136,580 61	12,560,920 27	4,424,339 66		54¼+	
Leather, hides, skins, furs, &c	4,105,496 36	4,469,370 69	363,874 33		8¾+	
Machinery and hardware	56,082 00	72,594 55	16,512 55		29½+	
Rags and paper waste	1,147,884 23	426,375 95		721,508 28		62¾+
Raw silk	53,968 59	106,767 65	52,799 06		97 +	
Seeds	212,458 03	167,607 22		44,850 81		21 +
Tea	880,325 10	957,975 26	77,650 16		8¾+	
Wool	1,279,818 70	2,739,773 60	1,459,954 90		114¾+	
Miscellaneous	10,490,444 05	17,804,079 84	7,313,635 79		67½+	
Total	37,323,547 79	51,632,923 19	15,392,559 90	1,083,184 50	*38¼+	

*Net total increase.

SUMMARY.

Total for year ending September 30, 1886	$51,632,923 19	Increase in 11 articles	$15,392,559 80
Total for year ending September 30, 1885	37,323,547 79	Decrease in 6 articles	1,083,184 50
Net total increase	14,309,375 40	Net total increase	14,309,375 40

POPULATION.

Since the last census was taken, in 1881, statistics of population have been carefully estimated by official experts to the middle of each year. The increase, 376,299 in 1885–'86, is only 13,049 greater than that of 1884–'85. In both years it appears that population was added to every division of the Kingdom, Ireland excepted.

The proportion of emigration from Great Britain to the United States in 1885 was larger than usual. Sixty-six per cent. of all who left this country seeking homes elsewhere went to and settled in the United States.

Total population of the United Kingdom estimated to the middle of each year (exclusive of army, navy, and merchant seamen).

Divisions.	1885.	1886.
England and Wales	27,499,041	27,870,586
Scotland	3,907,736	3,949,393
Ireland	4,924,342	4,887,439
Total	36,331,119	36,707,418

Total number of births, deaths, and marriages

Number of emigrants, of British origin only, to countries out of Europe.

Destination.	1884.	1885.
Australia and New Zealand	44,255	39,395
British North America	31,134	19,838
United States of America	155,280	137,687
Other places	11,510	10,724
Total	242,179	207,644
Of foreign and unknown origin	61,722	56,741
Total emigration	303,901	264,385

Number of immigrants of British and foreign nationality that entered the United Kingdom from countries out of Europe.

Years.	British and Irish.	Foreigners.	Not distinguished.	Total.
1884	91,356	32,007	103	123,466
1885	85,468	27,006	1,075	113,549

The number of paupers (exclusive of vagrants) in receipt of relief in the United Kingdom on a certain day in 1885.

Census taken.	Adult able-bodied.			All other paupers.			Total.		
	In-door.	Out-door.	Total.	In-door.	Out-door.	Total.	In-door.	Out-door.	Total.
England and Wales, January 1, 1885	23,909	78,518	102,427	166,275	515,453	681,728	190,184	593,971	784,155
Scotland, May 14, 1885	.....	.....	58,415	.....	.....	32,676	.....	.....	91,091
Ireland, end of first week in January, 1885	7,416	.....	7,416	42,262	.....	42,262	49,678	57,039	106,717
Total for United Kingdom	31.325	78,518	168,258	208,537	515,453	756,666	239,862	651,010	981,963

Amount expended in relief of poor in the United Kingdom in 1885.

England and Wales	$36,179,315
Scotland	4,357,550
Ireland	6,295,055
Total	46,831,920

Criminal returns, 1885.

	Committed for trial.	Convicted.	Acquitted.	Trials postponed through disagreement of juries.

The favorable signs in the criminal returns of the Kingdom since 1882 are marked and significant. In that year there were 15,898 convictions; in 1885, 14,029—a reduction, not considering increase of population, approximating to 12 per cent. This encouraging change was not accidental. The cause, it is thought, may be largely ascribed to the reduced consumption during that period of spirituous and intoxicating liquors, a fact shown by the following table:

Wines, spirits, and beer consumed in the United Kingdom.

Year.	Wines.	Foreign spirits.	Domestic spirits.	Beer.
	Gallons.	*Gallons.*	*Gallons.*	*Barrels.*
1882	14, 431, 282	8, 292, 125	29, 251, 754	27, 023, 616
1883	14, 382, 983	8, 235, 738	29, 421, 590	26, 828, 040
1884	14, 075, 625	8, 085, 705	28, 745, 893	27, 586, 526
1885	13, 848, 748	7, 935, 085	27, 348, 805	27, 191, 238

EDUCATION.

The quasi public schools of the Kingdom were attended by 115,140 more children in 1885 than in 1884, and the parliamentary grants for education were $1,493,775 greater. The per capita tax, to which allusion was made in the report of last year, is still imposed upon the scholars. The people of our country can scarcely appreciate the self-denial that is practiced by impoverished parents here in order to meet this weekly assessment. The feeling against this taxation has, however, become so universal that it will in all probability soon be abolished.

Primary schools in the United Kingdom in 1885.

Divisions.	Number schools inspected.	Number children who can be accommodated.	Average number children in attendance.	Number children present at inspection.
England and Wales	18, 895	4, 998, 718	3, 371, 325	3, 992, 074
Scotland	3, 081	660, 101	455, 655	521, 417
Ireland	7, 936	1, 075, 604	502, 454	.....

Amount expended from parliamentary grants in 1885, $22,165,715.

Average strength of the British army and navy.

Year.	Regular army.			Navy.		
	At home.	Abroad.	Total.	Officers and men.	Marines.	Total.
1884	89, 994	93, 010	183, 004	44, 550	12, 400	56, 950
1885	91, 579	106, 485	198, 064	48, 600	12, 900	61, 500

Effective strength of the army reserve, militia, and yeomanry, and number of volunteers enrolled.

Class.	1884	1885

AGRICULTURE.

It is a matter of controversy among agricultural economists whether the year 1885–'86 was not, everything considered, the most unfortunate one for farmers since 1879. About the only ameliorating circumstances were the root crop, which was extraordinary in quality and quantity, the great rise which took place in the price of wool, and the improved healthy condition of the flocks and herds.

There were under cultivation in the aggregate, 36,469 acres more than in 1885, but there was a decrease of 195,198 acres in the area under wheat, a fact undoubtedly attributable to the fall in the price of wheat in 1885.

The extension of permanent pasture land still continues. In 1886 the increase was 192,800 acres, making the total area 15,535,200 acres, indicating the steady change occurring against cereal cultivation, and in favor of grazing.

The area under barley was also less than in the year previous. The marked increase in the acreage under oats was because the oat crop has been found more reliable and more remunerative than either barley or wheat.

About the same number of acres were devoted to hops as in 1885, and, as appears elsewhere, the importation of hops was greater than 1884 or 1885.

There was an increase in the number of cattle and horses, but a decrease in the number of sheep, lambs, and pigs. Prices were generally worse than in 1885, notably so in the cereals. The price of meat and store cattle ruled lower than in 1884–'85, but sheep substantially improved in value.

Agriculture.

Crops.	1886.	1885.	1886 compared with 1885.	
			Increase.	Decrease.
	Acres.	*Acres.*	*Acres.*	*Acres.*
Corn crops	9,878,787	10,014,625	.....	135,838
Green crops	4,726,452	4,765,195	.....	38,743
Clover under rotation and permanent pasture	32,555,660	32,354,277	201,383	.....
Flax	130,933	110,639	20,294	.....
Hops	70,127	71,327	.....	1,200
Bare fallow	570,280	579,707	.....	9,427
Total	47,932,239	47,895,770	36,469	.....

Acreage under corn crops.

Description.	1886.	1885.	Increase.	Decrease.
	Acres.	*Acres.*	*Acres.*	*Acres.*
	2,357,894	2,553,092	.....	195,198
	2,432,749	2,447,169	.....	14,420
	4,418,959	4,282,594	136,365	.....
	[illegible]	59,301	7,298	.....
	[illegible]	[illegible]	.....	53,921

Live stock.

Animals.	1886.	1885.	1886 compared with 1885.	
			Increase.	Decrease.
	Numbers.	*Numbers.*	*Numbers.*	*Numbers.*
Horses	1,927,527	1,909,200	18,327	.....
Cattle	10,872,811	10,868,760	4,051	.....
Sheep	28,955,240	30,086,200	.....	1,130,960
Pigs	3,497,165	3,686,628	.....	189,463
Total	45,252,743	46,550,788	.....	1,298,045

MINERAL PRODUCTION OF THE UNITED KINGDOM.

The annual statement of the mineral production of the Kingdom for 1885, together with the estimates of values, obtained from the Economist, are given herewith, in comparison with the corresponding figures for 1884:

Minerals raised.

Articles.	Quantity.		Value at the mine.	
	1885.	1884.	1885.	1884.
	Statute tons.	*Statute tons.*		
Alum clay (bauxite)	9,030	8,560	$18,285	$21,400
Alum shale	2,331	1,960	1,460	1,225
Antimony ore	.....	4	.....	200
Arsenic	8,129	7,905	284,285	289,205
Arsenical pyrites	1,911	1,762	7,865	5,715
Barytes	26,153	20,062	151,480	146,780
Bog iron ore	8,066	6,453	12,100	9,675
Clays (except ordinary clay)	2,531,198	2,695,710	3,004,670	3,336,980
Coal	159,351,418	160,757,779	205,697,040	232,230,915
Cobalt and nickel ore	109	66	2,110	1,185
Copper ore	36,241	41,728	398,815	547,135
Copper precipitate	138	421	5,745	15,930
Fluor-spar	423	581	2,455	3,650
Gold ore	35	.....	35	.....
Gypsum	112,078	109,922	238,765	227,205
Iron ore	15,417,982	16,137,887	19,848,595	22,316,375
Iron pyrites	29,860	29,104	92,585	90,695
Jet (incomplete)	.....	.....	.....	.....
Lead ore	51,302	54,485	2,038,000	2,007,775
Manganese ore	1,688	909	12,055	7,195
Ocher, umber, &c	13,328	9,191	117,295	94,880
Oil shale	1,770,413	1,518,871	2,236,510	1,933,900
Phosphate of lime	30,000	51,866	250,000	519,880
Salt	2,207,683	2,332,704	3,903,075	3,391,715
Silver from lead ore	.....	.....	.....	.....
Slates and slabs	468,954	485,664	5,878,860	5,870,100
Stone, &c	Unknown.		44,245,510	44,254,270
Strontia	9,800	11,422	24,500	114,220
Tin ore	14,376	15,117	3,311,950	3,346,270
Wolfram	374	64	23,995	5,520
Zinc ore	24,668	25,563	335,000	370,145
Total	.....	.....	292,143,040	321,160,140

Metals contained in the ores.

Articles.	Quantity.		Value at the average market prices.	
	1885.	1884.	1885.	1884.
Copper ..... tons..	2,746	3,295	$677,075	$1,012,955
Copper precipitate	27	55	70	.....
Gold ..... ounces..	3½	.....	62,457,780	68,223,060
Iron ..... tons..	5,353,524	5,626,644	2,167,000	2,264,235
Lead ..... tons..	37,687	40,075	324,690	343,955
Silver from lead ore ..... ounces..	320,520	325,718	4,169,015	4,048,700
Tin ..... tons..	9,331	9,574	730,500	764,175
Zinc ..... tons..	9,778	9,919		
Total	.....	.....	70,526,130	76,657,080

Fisheries in Scotland.

Items.	1884.	1885.
Number of vessels engaged	15,445	15,532
Number of persons engaged on vessels	49,860	51,097
Total number employed including fish curers and others on shore	102,563	101,037
Value of cured fish:		
Herrings	$10,606,735	$7,864,761
Cod, ling and hake	747,040	626,763
Cod, ling and hake in pickle	44,305	53,350
Value of fresh fish	3,581,475	4,135,085
Value of shell-fish	404,695	445,965
Value of salmon	1,375,000	1,619,255
Total value	16,759,250	14,745,179

Fisheries in Ireland.

Items.	1884.	1885.
Number of vessels engaged	5,667	5,785
Number of persons employed	21,491	21,825
Value of mackerel caught	$673,190	$980,900
Value of herring caught	391,855	555,620
Value of fish exported to England:		
Salmon	.....	$2,120,535
Herring	.....	395,020
Mackerel	.....	442,550
Cod	.....	258,310
Total	.....	3,216,415

Salmon sold at London Fish Market.

[Each box weighing about 1 cwt.]

	1884.	1885.	Increase in 1885.

SHIPPING.

The fact is significant that the first time in ten years the tonnage of sailing vessels built in Great Britain for the home trade exceeded the tonnage of steam vessels. The excess was 11,436 tons, while the tonnage of sailing vessels built for foreigners was about double the tonnage of those using steam. Notwithstanding the increased economy in the use of steam it appears from the tendency indicated in the returns of ship-building that it is being found more profitable to invest in sailing vessels that do not require constant employment to insure reasonable dividends. It appears from the following table, taken from a recent authoritative statement on this subject, that at present the proportion of sail and steam shipping of the world is nearly two to one in favor of the former.

Country.	Total tonnage.	Steam vessels.	Sailing vessels.	Percentage of steam tonnage on total.
	Tons.	*Tons.*	*Tons.*	
British colonies	1,936,407	323,387	1,613,020	16
United Kingdom	7,387,208	3,969,728	3,417,480	54
France	1,033,829	511,072	522,757	50
Holland	302,769	103,422	194,347	36
Germany	1,294,288	413,943	880,345	33
Italy	971,001	122,297	848,704	13
Norway	1,583,434	105,628	1,477,806	7
Sweden	529,585	106,831	422,754	20
Belgium	80,592	74,667	5,925	92
Russia	560,000	110,000	450,000	20
Austria-Hungary	281,346	79,396	201,950	24
United States	1,287,999	184,188	1,103,811	14
Other countries	750,000	150,000	600,000	20
Total	17,998,458	6,259,569	11,738,899	35

The records of arrivals and departures at British ports of vessels of all nations, in 1885, is about the same as that of the year previous. The tonnage increase in favor of the United States, though small, deserves to be noticed. The aggregate tonnage was 31,862,420; of this Great Britain represented 70 and the United States 8 per cent. It will be observed from an accompanying table that for the last two years the shipping tonnage of the port of London has continued to increase, while that of Liverpool has continued to decrease.

In this connection attention is called to the following interesting statement recently issued by the National Life-Boat Institution of England:

During the past thirty-two years the self-righting life-boats of the National Life-Boat Institution have been launched nearly five thousand times on service, and have saved upwards of twelve thousand lives. The boats have been capsized, altogether, forty-one times, but only on eighteen of these occasions was there any loss of life. The number of lives lost (counting the twenty-seven men who perished on the occasion of the recent sad disasters to the Southport and St. Anne's life-boats) amounts to only eighty-eight, including twelve shipwrecked persons. The seventy-six life-boat men lost represents about one in eight hundred and fifty of the men employed in the boats on service, and the capsizes were at the rate of one in each of the one hundred and twenty service launches. The life-boats have also been out on

Tonnage of steam vessels of each nationality entered and cleared, with cargoes and in ballast, at ports in the United Kingdom from and to foreign countries and British possessions.

Flag.	Entered.				Cleared.			
	1884.	1885.	Increase.	Decrease.	1884.	1885.	Increase.	Decrease.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Austrian	29,709	23,154	.....	6,555	34,829	20,029	.....	14,800
Belgian	255,267	282,378	27,111	.....	264,673	274,364	9,691	.....
British	19,811,038	19,747,938	.....	63,100	20,217,634	20,046,224	.....	171,410
Danish	498,165	448,607	.....	49,558	522,547	464,461	.....	58,086
Dutch	591,974	643,978	52,004	.....	584,710	645,190	60,489	.....
French	742,717	740,416	.....	2,301	759,897	738,579	.....	21,318
German	1,222,827	1,348,611	125,784	.....	1,216,609	1,357,509	140,900	.....
Greek	68,926	77,349	8,423	.....	77,232	78,021	789	.....
Italian	96,148	54,105	.....	42,043	107,084	47,875	.....	59,209
Norwegian	287,017	290,087	3,070	.....	288,041	285,307	.....	2,734
Portuguese	17,941	22,588	4,647	.....	18,640	20,147	1,507	.....
Russian	40,136	52,487	12,351	.....	47,276	46,487	.....	789
Spanish	435,160	434,080	.....	1,080	455,260	451,962	.....	3,298
Swedish	338,758	366,294	27,536	.....	358,687	386,299	27,612	.....
United States	56,438	23,626	.....	32,812	56,673	21,602	.....	35,071
Other countries	26,629	31,168	4,539	.....	49,596	38,945	.....	10,651
Total	24,518,850	24,586,866	68,016	.....	25,059,388	24,923,001	.....	136,387

Tonnage of sailing and steam vessels of each nationality entered and cleared, with cargoes and in ballast, at ports in the United Kingdom from and to foreign countries and British possessions.

Nationality.	Entered.				Cleared.			
	1884.	1885.	Increase.	Decrease.	1884.	1885.	Increase.	Decrease.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Austrian	104,682	90,618	.....	14,064	113,111	97,527	.....	15,584
Belgian	255,652	283,465	27,813	.....	265,043	277,511	12,468	.....
British	23,037,215	22,980,464	.....	56,751	23,634,486	23,408,591	.....	225,895
Danish	769,676	721,590	.....	48,086	824,953	765,720	.....	59,233
Dutch	674,138	739,024	64,886	.....	659,081	740,692	81,611	.....
French	968,528	938,594	.....	29,934	1,003,871	939,132	.....	64,739
German	1,826,892	1,995,687	168,795	.....	1,857,157	2,001,735	154,578	.....
Greek	86,917	82,044	.....	4,875	92,636	85,946	.....	6,690
Italian	414,746	363,580	.....	51,166	429,851	360,169	.....	69,682
Norwegian	1,922,228	1,958,586	36,358	.....	1,995,024	1,976,162	.....	18,862
Portuguese	18,989	24,544	5,555	.....	21,233	22,027	794	.....
Russian	241,435	244,594	3,159	.....	250,477	240,211	.....	10,266
Spanish	464,571	454,383	.....	10,188	480,806	475,432	.....	5,734
Swedish	650,134	696,535	46,491	.....	684,401	711,815	27,414	.....
United States	222,988	255,615	32,627	.....	214,659	264,738	50,079	.....
Other countries	29,730	33,097	3,367	.....	57,212	41,814	.....	15,398
Total	31,688,521	31,862,420	173,899	.....	32,584,001	32,419,222	.....	164,779

Sailing and steam vessels built in the United Kingdom (exclusive of vessels built for foreigners and of vessels built for Her Majesty's navy).

	Sailing vessels.	Steam vessels.	Total.

Tonnage of British and foreign vessels (sailing and steam) that entered with cargoes and in ballast at the principal ports in the United Kingdom from foreign countries and British possessions.

Ports.	1884.	1885.	Increase.	Decrease.
	Tons.	*Tons.*	*Tons.*	*Tons.*
Cardiff	2, 667, 422	2, 381, 606	.....	285, 816
Glasgow	879, 071	922, 927	43, 856	.....
Hull	1, 391, 251	1, 651, 648	60, 397	.....
London	6, 769, 767	6, 902, 655	132, 888	.....
Liverpool	5, 209, 357	5, 173, 330	.....	36, 027
Newcastle	2, 095, 039	1, 858, 795	.....	236, 244
Southampton	900, 458	911, 172	10, 714	.....
Sunderland	812, 905	786, 019	.....	26, 886
Other ports	10, 763, 251	11, 274, 268	511, 017	.....
Total	31, 688, 521	31, 862, 420	.....	173, 899

BRITISH RAILWAYS.

The returns of railways in the United Kingdom for the year 1885–'86 show that the year's traffic was a trifle heavier, but less profitable to shareholders, than that of the previous year. The system was extended 305 miles and the paid-up capital advanced to $4,075,000,000—an increase of nearly $29,000,000. The increase of mileage and vested capital during the past thirty years is shown in the following table:

Year.	Mileage.	Capital paid up.	Capital per mile open.	Increase per mile over previous year.	Year.	Mileage.	Capital paid up.	Capital per mile open.	Increase per mile over previous year.
1854...	8, 053	$1, 430, 343, 970	$177, 615	.....	1882...	18, 457	$3, 839, 497, 850	$208, 045	.....
1864...	12, 789	2, 128, 598, 065	166, 440	.....	1883...	18, 681	3, 924, 606, 560	210, 085	$2, 070
1874...	16, 449	3, 049, 479, 655	185, 390	.....	1884...	18, 864	4, 007, 321, 835	212, 330	1, 845
1879...	17, 696	3, 585, 017, 345	202, 590	.....	1885...	19, 169	4, 079, 290, 275	212, 805	375

The total mileage is divided among the three parts of the Kingdom, as follows: England and Wales, 13,612 miles; Scotland, 2,982; Ireland, 2,575; the proportions of the total being 71.01 per cent. for England and Wales, 15.55 per cent. for Scotland, and 13.43 per cent. for Ireland.

The net receipts of the English and Welsh lines were $139,230,280; Scotch lines, $18,355,610, and Irish, $6,253,195.

Below is given a comparison of the receipts from various sources of the railway system of the whole Kingdom, showing a considerable decrease in receipts from passengers and goods, and only a small increase in the miscellaneous traffic. The effect of these losses, however, is somewhat counteracted by a reduction in the working expenses of $2,146,200.

Receipts.	1885.	1884.	+Increase or −decrease in 1885.	
			Amount.	Per cent.

The companies, it appears, carried 2,221,200 more passengers in 1885 than in the year previous, but their aggregate receipts from this source diminished by $2,145,500—this loss being divided among the classes as follows: Decrease on first-class receipts, $1,190,150; second class, $869,445; and third class, $86,350.

Class.	Passengers carried (excluding season-ticket holders).		Receipts.	
	1885.	1884.	1885.	1884.
	No.	*No.*		
First	32,465,142	34,582,500	$16,214,850	$17,405,000
Second	60,985,772	62,265,200	14,655,555	15,525,000
Third	603,762,117	598,144,100	87,943,650	88,030,000
Total	697,213,031	694,991,800	118,814,055	120,960,000

Receipts and tonnage of goods traffic.

From—	Receipts.			Tonnage.		
	1885.	1884.	+ increase or − decrease in 1885.	1885.	1884.	+ increase or − decrease in 1885.
			Per cent.	*Tons.*	*Tons.*	*Per cent.*
General merchandise	$101,910,820	$104,400,000	−2.38	73,511,709	75,712,300	−2.90
Minerals	76,231,150	77,643,500	−1.81	183,776,745	183,615,600	+.08
Live stock	6,214,065	6,189,000	+.40	.....	.....	.....

The details of expenditure compared with the preceding year are shown in the subjoined table:

Working expenditure.

Subject of expenditure.	1885.	1884.	Increase + decrease − 1885.
Maintenance of way	$31,529,115	$33,112,500	−$1,583,385
Locomotive power	46,887,680	47,329,000	− 441,320
Rolling stock	17,431,215	16,997,000	+ 434,215
Traffic expenses	56,535,810	56,395,500	+ 140,310
General charges	8,165,705	8,183,000	− 17,295
Rates and taxes	9,999,395	9,688,500	+ 310,895
Government duty	1,717,280	1,993,000	− 275,720
Compensation for personal injuries	640,050	918,500	− 278,450
Compensation for damage and loss	906,525	1,012,000	− 105,475
Legal and parliamentary expenses	1,237,025	1,620,000	− 382,975
Steamboat, &c	6,802,120	.....	.....
Miscellaneous	2,149,385	2,309,000	− 159,615

Length, paid-up capital, traffic, receipts, and working expenses of horse railroads in Great Britain in 1885.

									Net re-
									king

BRITISH POST-OFFICE.

The British post-office is a marvel of business centralization. In addition to the forwarding of mail-matter, transmission of telegrams, the use of the telephone, the delivery of small parcels, the exchange of money by postal orders, and receipt of small savings—features to which allusion was made in the last annual report—it receives money for investment in Government stock, insures lives, grants annuities, issues inland-revenue stamps and licenses, and recruits soldiers for the army.

MONEY ORDERS.

Money orders are issued for sums varying from 1*s.* (25 cents) to £10 ($50), at rates varying from 2*d.* (4 cents) to 1*s.* (25 cents). This is regarded as a safe mode of transmitting money. The original order being issued to the applicant, and a duplicate being sent to the post-office to which it is made payable, the recipient having, upon application for the amount, not only to sign it, in exact accordance with the printed directions, but has also to state the full name and address of the sender, which information does not, of course, appear upon the original order in his hands, but upon the duplicate sent to the postmaster at the office at which it is payable. The total number issued for the year 1885 was 10,703,320, representing $111,319,495.

NOTE SYSTEM.

Postal notes are issued for sums varying from 1*s.* (25 cents) to £1 ($5), at rates from $\frac{1}{2}d.$ (1 cent) to $1\frac{1}{2}d.$ (3 cents). If an odd amount of pence is required to be transmitted, the sender may affix postage-stamps of the required value on the back of the postal note. The special advantage of these orders or notes is that they can be cashed at any post-office at which they are presented (unless the name of a particular office is designated), and it is only necessary for them to be signed in the name of the person appearing upon them. The fact that they are so cashed, or passed as current "coin," renders this a rather insecure way of transmitting money. The total number issued during the year 1885 was 24,085,015, representing $50,483,850.

SAVINGS BANK.

The savings bank is the largest and most popular branch of the department. In this the public may invest their savings at interest in sums of from 1*s.* (25 cents) to £150 ($750), but not more than £30 ($150) may be deposited in any one year. The total deposits, including interest accrued, in the post-office savings bank on the 31st December, 1885, amounted to $238,489,190. In order to encourage thrift among the poor, blanks are supplied gratuitously at all post-offices, divided into twelve small spaces, on which unused 1*d.* (2-cent) postage-stamps may be affixed, one by one, until filled up, when the slip will be received at any post-office as a deposit for 1*s.* (25 cents).

A person who has thus

INVESTMENTS IN GOVERNMENT STOCKS.

A person wishing to invest any sum, from £10 ($50) to £100 ($500), in Government stock can do so at any post-office, at the current price of the day, at a small commission, varying from 9*d.* (18 cents) to 2*s.* 3*d.* (56 cents).

LIFE INSURANCES.

The post-office also issues life policies upon the lives of persons between the ages of fourteen and sixty-five, and for sums of from £5 ($25) to £100 ($500). The premiums may be paid annually, half yearly, quarterly, monthly, or weekly, and at any post-office near which the insured may be located when the premiums become due.

ANNUITIES.

In like manner the post-office also grants immediate or deferred annuities of from £5 ($25) to £100 ($500) per annum, under similar conditions, payable either in one sum or by periodical installments. Persons whose lives are insured, or to whom annuities are granted by the department, have direct Government security for the payment of the money. Husband and wife may each be insured, or purchase annuities for the maximum amount £100 ($500).

STAMPS AND LICENSES.

Bill stamps, indicature fee stamps, and dog, carriage, game, and all other licenses, are also insured at most of the head and district post-offices in London and the provinces.

TELEGRAPH, TELEPHONE, AND PRIVATE WIRE SYSTEMS.

The lowest rate for inland telegrams is 6*d.* (12 cents). The total number of messages transmitted for the year ending March 31, 1886, was 39,235,813.

The department has a large number of telephone exchanges, the subscriptions to which amount, at present, to about $125,000 per annum, but the greater part of the telephone business is conducted by private companies, who pay royalties to the department of upwards of $100,000 per annum. The department also leases private telegraph wires to individuals at yearly rentals.

ARMY RECRUITING.

The department assists the military authorities, by supplying postmasters with all the necessary forms of attestation of recruits, which obviates the necessity for intending recruits having to proceed to the depot for information.

[illegible] detailed cash account every [illegible] and

The subjoined table shows the estimated number of letters, &c., delivered in the United Kingdom during the year 1885:

Mail matter.	Number estimated.	Increase.	Average number to each person.
		Per ct.	
Letters	1,403,597,900	3.2	38.6
Post-cards	171,290,000	6.9	4.7
Book packets and circulars	342,207,400	6.8	9.4
Newspapers	147,671,100	2.8	4.1
Total	2,064,766,400	4.0	56.8
Parcels	26,417,422	15.3	.7
Gross total	2,091.183,822	4.2	57.5

Of the above total number of pieces of mail matter delivered, 84 per cent. were delivered in England and Wales (27.4 per cent being in London alone), 9.6 per cent. in Scotland, and 6.4 per cent. in Ireland.

POSTAL REVENUE.

The gross revenue from every source for the year was $51,394,325, arrived at as stated herewith:

Postage on letters, parcels, post-cards, newspapers, &c	$39,434,490
Money orders	827,840
Postal orders	572,690
Unclaimed money orders	18,000
Savings bank	1,605,050
Telegrams	8,936,255
	51,394,325
Expenses	37,849,915
Net revenue	13,544,410

Being an increase of $312,920 on the previous year.

BRITISH PATENT OFFICE.

More applications for British patents come from the United States than from any other foreign country. The number was 201 greater last year than the year before, and was 8½ per cent. of the whole number registered. Under the act of 1883 the arrangements and facilities of the patent office have been greatly improved. The expense to applicants has been reduced and the modes of procedure simplified. The following table shows the cost of securing the rights of a patentee for the periods named:

Period.	Cost.	Period.	Cost.
For 9 months	$5	For 9 years	$295
For 4 years	20	For 10 years	370
For 5 years	70	For 11 years	
For 6 years	120	For 12 years	
For 7 years			
For 8 years			

Applications for patents in 1885.

From residents of—	Number.	From residents of—	Number.
England and Wales	11,254	Holland	29
United States	1,382	India	26
Scotland	905	New Zealand	25
Germany	869	Denmark	24
France	701	Spain	23
Ireland	208	Victoria	22
Austria	156	New South Wales	15
Belgium	121	Channel Islands	12
Canada	79	Cape of Good Hope	10
Switzerland	56	Other countries	66
Sweden	41		
Russia	41	Total	16,101
Italy	36		

ELECTION EXPENSES.

It will be remembered that in 1883 the opponents of the proposed law to prevent bribery and to reduce expenses at general elections urged, with apparently good reasons, that while the principle of the law would command approval it would be found, if enacted, impossible to execute it; that the multiplicity of its cumbersome details would render it useless. So general was this feeling that the law contained the singular condition that it should not be operative for more than one year unless re-enacted, but experience has justified the wisdom of its general provisions. The expense of elections has been greatly lessened, and the number of contested elections, always exciting and oftentimes scandalous, greatly reduced.

The first official statement of the expenses of a general election since the passage of this law has just been issued, and is given in the following table:

Cost of general election.

Divisions.	Total expenses.	Cost per vote.	Divisions.	Total expenses.	Cost per vote.
England:			Scotland:		
Counties	$2,593,640	$1 33	Counties	$426,530	$1 66
Boroughs	1,335,815	81	Boroughs	210,690	1 08
Universities	965	.....	Total Scotland	637,220	1 41
Total England	3,930,420	83	Ireland:		
Wales:			Counties	261,375	68
Counties	199,860	1 50	Boroughs	56,650	66
Boroughs	47,000	1 14	Universities	685	.....
Total Wales	246,860	1 39	Total Ireland	318,710	68
			Grand total United Kingdom	5,133,210	1 10

... from and paid to depositors in the post-office savings banks, and of ... savings banks, in 1885.

Total amount received and paid by trustees of savings banks from and to depositors, and of the computed capital of savings banks, in 1885.

Items.	England and Wales.	Scotland.	Ireland.	United Kingdom.
Received	$35, 399, 075	$11, 602, 465	$2, 026, 995	$49, 028, 535
Interest credited	4, 795, 675	1, 023, 960	263, 385	6, 083, 020
Paid	38, 442, 060	11, 299, 620	2, 794, 765	52, 536, 445
Capital	181, 813, 450	39, 874, 160	10, 091, 935	231, 779, 545

Amounts cleared the London Bankers' Clearing House in the last five years.

Years.	Amount.
1881	$31, 785, 000, 000
1882	31, 105, 000, 000
1883	29, 645, 000, 000
1884	28, 995, 000, 000
1885	27, 555, 000, 000

Public revenues and expenditures of Great Britain for the year ending March 31, 1886

Debit.		Credit.	
For funded and unfunded debt	$117, 248, 390	Customs	$99, 135, 000
Civil list and civil charges of all kinds	96, 070, 755	Excise licenses, &c	127, 300, 000
Army	85, 135, 420	Stamps (inland-revenue)	57, 950, 000
Navy	63, 302, 545	Land tax and house duty	14, 450, 000
Naval and military operations	47 255, 000	Property and income tax	75, 800, 000
Afghan war (grant to India)	1, 250, 000	Post-office	40, 750, 000
Annuity (under Indian army pension deficiency act, 1885)	750, 000	Telegraph services	8, 700, 000
Total	411, 012, 110	Crown lands	1, 900, 000
Charges for collection of revenue	50, 107, 110	Interest on advances for local works and on Suez Canal shares	6, 880, 400
Gross total	461, 119, 220	Stamps in lieu of fees	3, 459, 465
		Receipts by civil department	11, 581, 640
		Total income	447, 906, 505
		Deficiency	13, 212, 715
		Total	461, 119, 220

Average minimum rate per cent. of discount charged by the Bank of England in each month since 1880.

Months.	1881.	1882.	1883.	1884.	1885.
January					
February					
March	$3\frac{5}{16}$	$5\frac{1}{16}$	$4\frac{3}{4}$	3	5
April	$3\frac{1}{4}$	$5\frac{13}{16}$	$3\frac{3}{4}$	$3\frac{11}{28}$	5
May	3	4	3	$3\frac{9}{31}$	$3\frac{5}{32}$
June	3	3	3	$2\frac{1}{2}$	$3\frac{1}{2}$
July	$2\frac{1}{2}$	3	$3\frac{11}{16}$	$2\frac{1}{2}$	$2\frac{23}{31}$
August	$2\frac{1}{2}$	3	4	$2\frac{1}{3}$	2
September	$2\frac{1}{2}$	3	4	2	2
October	$2\frac{15}{16}$	$3\frac{13}{16}$	4	2	2
November	4	$4\frac{7}{16}$	$3\frac{13}{16}$	2	2
December	$3\frac{3}{16}$	5	3	$2\frac{5}{8}$	2
	5	5	3	$4\frac{5}{8}$	$2\frac{19}{30}$
Average					
	5	5	3	5	$3\frac{1}{6}$

Mean relative humidity of the atmosphere for each month of the year ending September, 1886.

[Royal Observatory, Greenwich, W. H. M. Christie, esq., M. A., F. R. S., Astronomer Royal.]

Months.	Mean relative humidity (complete saturation=100).	Months.	Mean relative humidity (complete saturation=100).
1885.		1886—Continued.	
October	84	April	79
November	90	May	76
December	87	June	73
1886.		July	72
January	88	August	79
February	87	September	79
March	80		

THOMAS M. WALLER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
London, October 30, 1886.

BRISTOL.

Report of Consul Lathrop.

MATERIAL WEALTH OF THE UNITED KINGDOM.

There have been attempts of late to discover and to estimate the material wealth of the United Kingdom, and some interesting series of figures have been presented, the most accurate and trustworthy of which come from the treasury department with the imprimatur of authority. These are presented in Tables A, B, and C, but they must be received with caution as approximation, not as certainty, for the nature of the subject will not, under existing fiscal conditions, allow of absolute accuracy. Taxes are levied upon income, not upon capital; and values in these tables are obtained by capitalizing income, at what seems in some cases an arbitrary number of years' purchase. For instance, in Table A the income from land, as shown by the income tax returns for the fiscal year ending April 30, 1884, is set down at about $318,500,000 which is capitalized at twenty-five years' purchase. Many English landowners would be glad to sell at twenty—not to speak of twenty-five—times their nominal rent income, and Irish land-owners are few indeed who would not accept twenty years' purchase. Again, many landlords while nominally maintaining their rents—which thus are entered in full in the assessment rolls—are forced to grant reductions each year of 20, 30, even 50 per cent., owing to agricultural depression. It is thus plain to be seen that the $8,000,000,000 given in Table A as the capital of the United Kingdom is many millions too high. The [illegible] $66,500,000) as the value of [illegible] &c.), is

Table A gives the total value of real property in the United Kingdom at $18,387,763,659, and Table B shows the total value of personal property at $27,412,000,000. The item of 2,600,000,000 in this latter table for fifteen years' purchase of one-fifth of the total income of the trades and professions is a flying shot which may not come within millions of dollars of the target.

The grand total of real and personal property in Great Britain is $45,800,000,000.

The figures presented in these tables as to investment in foreign properties are such as to excite high admiration for the splendid energy that has centered such enormous wealth in Britain. These figures, it should be remembered, are not, as are some in the tables, the result of refined speculations on the part of the treasury, but accurate returns from the income-tax gatherers, whose natural acumen is sharpened by a percentage on collections and whose persistence in ferreting incomes is such that little escapes them. Table B tells us that the income of the year from investments in foreign and colonial Government stock was $99,250,000; from investments in foreign and colonial private securities, $47,000,000; from foreign and colonial railways, $18,375,000, and from foreign investments accruing to investor under other divisions of tax schedule, $146,000,000; total, $310,625,000.

Such a sum, added to freights, commissions, travelers expenditures, loans made by England, &c., will easily explain how each year is corrected the enormous apparent trade balance against England.

REVENUE AND EXPENDITURES.

The returns upon which are founded the complicated calculations in these tables exhibit in an incomplete manner the sources of governmental revenues. I therefore present a full table, showing the revenue for the fiscal year ending April 30, 1886:

Source of revenue.	Amount.	Source of revenue.	Amount.
Customs	$96, 488, 095	Telegraph	$8, 467, 710
Excise	123, 901, 090	Crown lands	1, 849, 270
Stamps	56, 402, 735	Interest on advances	6, 696, 304
Land tax and house duty	14, 064, 185	Miscellaneous	14, 638, 432
Property and income tax	73, 776, 140		
Post-office	39, 661, 975	Total	435, 945, 936

The expenditures for the year for all purposes were $448,808,096, which it will be observed left a deficit of $12,862,160.

BRITISH TRADE DEPRESSION.

Trade during the year 1886 in the consular district of Bristol has moved in entire accord with general conditions; hence it is impossible to consider it independently in the first instance, and a wide preliminary survey must be made.

The long prevailing commercial gloom, though lightened during the latter months of 1886 by a few stray gleams hop[illegible]
activity and enlarg[illegible]

The most widely operating cause of low prices and worthy to be mentioned first, on account of its general effect, not only on all the European nations but also on the United States, is the employment of gold alone as a measure of values. The adoption of the gold standard by Northern European nations, the suspension of silver coinage by the Latin nations, the resumption of specie payments in the United States, the sale of silver by the gold-adopting countries, all combined to unduly appreciate the value of gold as compared with its sister metal and with commodities. The result has been a long, slow, grinding adaptation to the new conditions, pressing unequally upon nations and upon individuals, and intensely aggravating a depression which in all probability would have occurred without a concurrent restriction of circulation by various nations, but which would have been, in all probability, by no means so severe. This subsidence of values has affected Great Britain quite as it has other nations, but being the richest of the European nations, and being so heavily a creditor of the world, she has felt the depression last, and thus, while continental countries have been driven to desperate exertions to improve and cheapen their manufactures and to find new and enlarge old markets, Great Britain has been asleep, and now when the pressure is upon her as badly as upon the others she wakes to find Germans, French, and Belgians actively disputing markets which she thought hers by prescription.

Conservative Great Britain, monometallic for seventy years, and its masses inclined to regard the relation of gold and silver as of something more than human origin, and sacrilegious to meddle with, looking eagerly this way and that for some explanation for unremunerative prices, is at last willing to look into the question of bimetallism, and a royal commission has been duly appointed to inquire into the question of the currency. In the mean time great public interest is manifested in the question, and able double-standard men are propagating their views with activity and enthusiasm. If commercial depression continues as acute as at present for a year or two it will not be surprising to find a radical change in English opinion on this matter, and perhaps a disposition to associate with other nations for the maintenance of an international bimetallic standard.

Foreign competition has also contributed to English depression. The unification of the petty German states into a great nation, and the direction and concentration into single channels, by a master hand, of forces hitherto diffused, has exalted the German nation, *per saltum*, into a successful and dreaded competitor of England. The heavy tariff of Germany which, combined with prodigal bounties, has produced an illusory and ephemeral activity and prosperity, might have been expected to prevent the nation from being to any extent a competitor in foreign trade; but they can export, and export largely, independently of bounties, and their ability to so do is largely due to the fact that labor has not participated in the advantages of the tariff. In other words, while the prices of commodities have been augmented by the tariff the [illegible] not increased; hence manufacturers can compete [illegible] signal aid in various ways [illegible] state aid,

against fifty-four, fifty-six, and sixty. England is, however, not in all trades handicapped to the extent indicated by the money difference in wages. A quotation from the letter of the manager of a large works in Lower Germany to a brother ship-builder in England will illustrate my meaning:*

I think that your men if they were to work here at our rates would stand about half-way between your and my figures. That is to say [comments the receiver of this letter] his men earn 5*s.* 6*d.* [per day] and our men 13*s.*, a difference of 7*s.* 6*d.* He would add 3*s.* 9*d.* to his men, which would be more than 50 per cent. added to his rate, so that he himself confesses that an English workman is 50 per cent. better than a German workman.

In some branches of manufacture the question of artistic skill and natural taste in the labor intervenes, and, particularly in France, is of assistance to the manufacturer in producing better and cheaper stuff than his English competitor. I find also, in examining the testimony of the various witnesses before the commission on depression in trade, that manufacturers charge, and advance striking instances as proof, that trade unionism has materially increased, in some branches, the cost of production in England, by forbidding superior pay to superior merit, by preventing men from working overtime, &c. A large manufacturer in Cork, Ireland, employing both English and Irish, went so far as to say that artisans disposed to do a fair day's work for a fair day's pay were the exception, not the rule, and that he attributed their less productive labor to trades unionism "as much as anything else."

After monometallism and foreign competition as causes of depression comes overinvestment during the active years of the last decade in certain kinds of manufacturing plant, and the consequent inability to find a market for the now largely increased output. In some trades, notably ship-building, when the natural demand ceased, employers, to keep their men employed and their plant from deterioriation, constructed either on their own account or on unduly easy terms, the result being an abnormal production, continuing for a considerable period beyond the really active years, and resulting, in shipping for instance, in redundant tonnage, low freights, ruined owners, and hungry sailors.

Investment in manufactures is rendered almost too easy in Great Britain by the simplicity with which limited companies can be organized, and the ease with which minute rivulets of capital can be concentrated. No doubt undue multiplication of small and sometimes badly managed limited companies has contributed to the injury of commerce. There were registered in the United Kingdom in the year 1885, 1,482 companies with a nominal capital of $580,198,539, of which $77,087,817 was paid up. In April, 1886, there were believed to be 9,471 registered companies carrying on business, with a paid-up capital of $2,577,481,789. Since the "companies act" became operative in 1862 there have been 24,622 companies registered with a nominal capital of $13,769,457,949, † so that 15,151 companies have in less than twenty-four years died a natural death, and $11,191,976,160 of nominal capital have disappeared from the register. This death list might be considerably increased to the signal advantage of commerce by the addition of numerous moribund companies now struggling for existence. The following figures

will show the principal purposes for which the companies registered in 1885 were organized:

Purpose of organization.	Capital.	Purpose of organization.	Capital.
Textile manufactures	$9,025,897	Engaging in foreign trade and commerce	$71,251,643
Metal manufactures	6,517,216	Mining	119,325,645
Manufactures other than textile or metal	49,229,076	Clubs	1,520,182
Banks, capitalists, and money lenders	83,197,684	Sundries	205,734,122
Ship-owners and builders	34,397,074	Total	580,198,539

Foreign tariffs have contributed much towards restricting the commerce of England. Not only have they actually limited her consuming area, but they have also, through the ease with which capital, skill, and machinery can be moved in these days, induced the transplanting of English manufactories. English manufacturers are now producing in the United States behind the shelter of the tariff, and there has also been some removal of plant to Germany. Since the German tariff was increased in 1879, five woolen factories from the neighborhood of Dewsbury* alone have been transplanted to Germany, though the testimony is that the "sanguine expectations of their owners have not been realized."

Great Britain is each year less a banker for the world and a central depot for the distribution of goods. Direct shipments from producer to consumer on the Continent now eliminate London more and more and deprive that center of large revenues in commissions and brokerage. Curiously enough, a combination of British vessels in the China trade discriminates in freights so seriously against London and in favor of Havre and Hamburg that a considerable trade is lost by London. The object of the discrimination is to cut out the German steamers. Freight from China to London is 57*s.* 6*d.*; if the goods are forwarded on from London to Hamburg on a through bill of lading, the freight is only 40*s.* A considerable brokerage business has thus been lost to London, as continental consignees have been compelled by the differential rate to establish their depots in continental ports.

I have pointed out that the Continent is cutting out to some extent Great Britain in production. Let us see how the latter manages in distribution. Her own ministers and consuls shall tell us this. Though published, their several statements have never appeared grouped together, and I think they will gather additional weight and point from juxtaposition.

Sir Edward Thornton writes to his London chief, May 1, 1886:

> For many years past, I have been painfully impressed, during my residence on the River Plate, Brazil, and the United States, with the conviction that English merchants are indeed being driven out of the field by Germans, but that the latter attain this superiority, not by protection from their authorities, but by their own unaided and independent energy, by the greater economy of their establishments, and by down-

of both chiefs and subalterns.

the present day is unfit to compete with the thrifty and industrious German. The former is bent on the pursuit of pleasure, whilst the latter gives himself no leisure until the future is assured.

The consul at Leghorn says:

If a larger proportion of the requirements of consumers in this country is now supplied from Germany and Austria, I believe it may be traced in a great measure to the energy of their commercial travelers. There are also a considerable number of German houses here, in many instances started by young men who came here a few years back as employés. They are satisfied with small profits and live with the utmost thrift.

The consul at Boulogne says that foreign traders employ travelers to a far greater extent than British houses do; while the British official at Havre is surprised to find how seldom a commercial traveler comes there from England.

Mr. Consul Wrench, at Constantinople, says flatly that—

The main cause of the falling off in British trade rests with the merchants themselves, who, instead of imitating the example of the Germans (whose success they so much deprecate), think it unnecessary, from motives of economy or from indolence, to send agents or commercial travelers to foreign countries to advance their interests.

The consul at Cadiz writes that—

British merchants do not evince that amount of enterprise and self-reliance, nor do they appear to take that interest in the requirements of foreign markets, which is shown by their French, German, and Belgian competitors.

How striking is this unanimity of condemnation! How worthy of reflection by the manufacturers of the United States! The British merchant, Sir Edward Thornton tells us, is being supplanted on the Plate and in Brazil. Is it the American who is stepping into his shoes, who is profiting by what his own official calls his lack of enterprise and interest? Is it the American who is taking advantage, at his own doors, of the British apathy and indifference to Mexican trade which Sir Spencer St. John tells us exist? Is it the American whose energy, intrepidity, and thrift is the subject of unwilling praise from a chorus of British officials? On the contrary, his name is never mentioned. He stands by, apparently, with folded arms while the "thrifty" German fights with Britain for her trade.

The above review of the manufacturing and commercial interests of Great Britain is, I fear, more truthful than cheering, and it must be admitted that the prospect of the maintenance by this country of her commercial supremacy is not flattering. Even her magnificent shipping interests will be obliged to contend with enormous odds, not only in building and sailing bounties lavishly bestowed by Germany, France, and Italy, but also in the lesser cost with which these continental ships can be sailed, the difference being principally in wages. A large ship-owner has testified that a German vessel with which he was familiar, of 458 tons, cost $2,778 per year less to run than an English vessel of about the same size. A second comparison between a German vessel of 603 tons and a British vessel of 545 tons showed $1,776 in favor of the former. A British ship known to this ship-owner was transferred to the Danish flag and the saving on wages alone for the first year was $2,112, which being about 5 per cent. of the cost of the ship to the Dane, meant the difference between a bad and a lucrative investment.

The following table shows that in the decade ending with 1886 there had been an increase in Great Britain of permanent pasture to the extent of nearly 2,250,000 acres, and a decrease of wheat acreage of more than 1,000,000:

Description.	1875.	1886.	−Decrease. +Increase.
STOCK.	*Acres.*	*Acres.*	*Acres.*
Wheat	3,342,481	2,285,905	−1,056,576
Barley or bere	2,509,701	2,241,164	− 268,537
Oats	2,664,009	3,081,596	+ 417,589
Rye	54,903	55,926	+ 1,023
Beans	564,181	381,186	− 172,995
Peas	316,375	214,388	− 101,987
Green crops	3,664,107	3,480,480	− 183,627
Flax	6,751	3,068	− 3,683
Hops	69,171	70,127	+ 956
Bare fallow	557,979	552,898	− 5,081
Rotation grasses and clover	4,354,071	4,689,200	+ 335,129
Permanent pasture	13,312,621	15,536,279	+2,222,658
LIVE STOCK.	*Head.*	*Head.*	*Head.*
Horses	1,340,129	1,425,359	+ 85,230
Cattle	6,012,824	6,646,683	+ 633,759
Sheep	29,167,438	25,520,718	−3,646,720
Pigs	2,229,918	2,221,475	− 8,443

All economists calculate that in England and Wales alone there is $200,000,000 worth less of food annually produced than was produced ten years ago, and the production is certain to decrease further, for farm-land, to be worth tilling, must bring on an average $25 to the acre, and this it cannot do at present consuming values. Nor is there prospect that in the future crops can be profitably grown in competition with India, the United States, and other countries having a surplus. The result will each year be an increasing acreage of land untilled and left to grow grass for pasturage, with the result of deterioration of the land, of land-owners with diminished incomes, of farmers without farms, and of agricultural laborers without employment, and of traders and manufacturers without buyers. The farmers ask governmental aid in protecting them from the intolerable and irresistible foreign competition. One asks for protective duties on foreign grain, another asks for a duty on foreign manufactures, out of which shall be paid a bounty for rotating crops. But manufacturers dare not imperil their foreign markets by such momentous concessions.

BANKRUPTCY.

During the present century there have been enacted in Great Britain more than ten brankruptcy acts, the last of which, that of 1883, now having been on trial for three years, is worthy of attention. Said the master of the rolls in the case of Reed, Bowen & Co.:

This act of Parliament was passed because it had been proved to the satisfaction to the legislature that a majority of creditors, however large, was not careful and was not to be trusted; on the contrary, was careless; that they practically dealt with [illegible] that they in their own judgment wrote off the debts as [illegible] might give some possibility or an eva- [illegible] because of the

that act being eminently unsatisfactory the act of 1869 was a swing to the other extreme and a permission to the creditors to take the best care of themselves. This again proving unsatisfactory, the act of 1883 was introduced with a swing back toward officialism. But in the act of 1849 no governmental department was specially charged with the supervision of either the conduct of the debtor or the administration of estates, the officials all being attached to the court. Now, in the 1883 act the control of nearly all bankruptcy administration is removed from the courts to a department, and that department in the person of the official receiver is interjected into so much of bankruptcy business as still comes under the cognizance of the court.

The Board of Trade is made the guardian of creditors and the inspecting and restraining authority over trustees in bankruptcy and their accounts and the depository of their funds, which the Board lodges in the Bank of England to the credit of "the bankruptcy estate account." The Board appoints an official receiver for each bankruptcy district, who is also an officer of the court having bankruptcy jurisdiction, and who has multifarious duties in connection with bankrupts and their estates. This officer, when a bankruptcy petition is presented to a court, is immediately appointed interim receiver of the debtor's property and protects it until more permanent arrangements are made. He also obtains full information as to the condition of the insolvent estate for the benefit of the creditors, and it is one of his most important duties to protect the interests of the general public by inquiring into, exposing, and providing for the punishment of fraudulent and reckless trading or culpable extravagance.

Creditors may deal with a debtor's estate by composition or arrangement; but they have only slight power with respect to discharge of debtor. This power is in the court, who may grant, refuse, suspend, or make conditional the discharge, not entirely at its discretion, however, but by the application of well-defined rules to the special cases. Creditors, however, have a voice in the question of debtors' discharge, and it is listened to by the court with whom the decision finally rests, but experience has shown that creditors are either supine or needlessly lenient and even sometimes amenable to improper influences; the act makes the report of the official receiver the chief guide for the judge.

It is quite recognized in the act of 1883 that creditors have rights in respect of the estates of their insolvent debtors,* but it says that these shall be subordinated to a higher law, namely, the interests of commercial morality and of the state in maintaining integrity. In framing the act of 1869 it was supposed that creditors would not lose sight of the greater result while taking care of their individual interests, but as it turned out they hopelessly failed in their duties, not only to the community, but to themselves and to each other, and by common consent the act of 1883 is admitted to be an immense improvement, not only in taking cognizance of the business conduct and course of trading of the debtor, but in supervising and partially controlling the administrators of all insolvent estates.

The very searching examination of the bankrupt as to the conduct of his business for a period long anterior to his failure, has been productive of good results. The creditors, the court
before them

The bankruptcy act of 1869 was operative throughout 1883. The figures for this year are "almost identical with the annual average of the fourteen years during which that act was in operation. Hence the comparison with 1883 is a comparison with average results under act of 1869."

Years.	No. of cases.	Estimated liabilities.	Estimated assets.	Estimated deficiency.	Percentage of assets to liabilities.
1883	8,535	$103,501,456	$29,138,382	$74,363,073	28.1
1885	4,333	43,982,400	15,052,819	28,929,580	34.2
Decrease	.....	59,519,056	14,085,563	45,433,493	*6.1

* In all estates over £300 worth of assets they appoint their own trustee and committee of inspection, whose actions and accounts are, however, subject to the approval of the Board of Trade.
† Increase.

This table shows that loss to creditors through bankruptcy in 1885 was less than the average loss of preceding years by forty-five millions. Indeed, the inspector-general of bankruptcy claims in his report fifty-five millions. Such a splendid result is solid in the main and is due partly to a firmer basis of trading, induced by long years of depression and weeding out, partly to the beneficent effects of the new bankruptcy law and partly to the fact that the uncertainties attendant upon the execution of a new and complicated law have induced a proportion of debtors and creditors to quietly compound without publicity. The stringent bankruptcy law in the background has, however, stimulated the debtor to a better settlement than would perhaps have been made under the old statute. The Manchester Guardian Society, for example, is instanced as receiving an average of 42 cents on the dollar on compositions accepted by them in 1884, as against an average of 26 cents for the five previous years.

But there is good reason to believe that the number of private arrangements have not been greatly increased by the act. Independent inquiries, through bankers, made by the Board of Trade, show that there has been a striking diminution in the number of insolvencies during the past year, and that there has been within the knowledge of the bankers—a class certain to be well informed—no increase of private arrangements. Similar testimony comes from great trading organizations, and we must therefore conclude that the notable diminution of loss to traders in 1885—$45,000,000—through bankruptcy, is a solid and bona fide improvement.

Not only does the table show this great decrease in losses, and a reduction of one-half in the number of cases, but it also shows that the assets averaged 34 per cent. of liabilities against 28 per cent. under the old act. The collection of assets has also been conducted at a considerably reduced cost, as the following table shows:

Percentage of costs, both under the bankruptcy and liquidation clauses of the act of 1869 of closed cases realizing less than £300, as compared with the percentage of costs of similar estates wound up by official receiver under the act of 1883.

The cost of administration has thus been reduced by about one-third.

When it is remembered [says the inspector-general of bankruptcy] that under the present act, in addition to all the work done under the old, there is also the duty of investigating and reporting on the debtor's conduct, that the amplest guarantee is afforded to creditors for the due administration of the funds of an estate, by virtue of the security required from the trustees, the control of the funds, and the official audit of all accounts, that the information now afforded to creditors is of a much ampler character than that formerly given, and that the creditors have the advantage throughout the administration of supervision by a highly trained body of officers of large experience, acting entirely free from partial or interested motives, it will be seen that while the actual cost of administration has been greatly diminished, the services rendered in respect of such cost have been materially increased.

The following figures show the percentages of cost in cases where the estates realized over £300.

Act.	Estates realizing £300 and under £1,000.		Estates realizing between £1,000 and £5,000.	
	Percentage to gross assets.	Percentage to net assets.	Percentage to gross assets.	Percentage to net assets.
Under 1869 act (year 1882)	39.28	52.68	24.44	29.47
Under 1863 act (year 1885)	25.00	28.00	16.00	18.00

Analysis of costs showing under different heads the proportion per cent. of such costs to the gross assets realized in all estates wound up by official receivers during the years 1884 *and* 1885.

Items.	1884.	1885.
	Per cent.	*Per cent.*
Board of Trade and court fees, including commission on realizations	13.62	14.16
Law costs (petition)	3.61	3.83
Law costs after receiving order	.92	1.74
Fees for keeping possession, &c	1.99	2.12
Special manager	.06	.03
Assistance to debtor in preparing statement	.30	.50
Auctioneer	5.13	5.25
Other taxed charges	.55	.79
Gazette notices	.82	.92
Incidentals	2.26	2.35
Totals	29.26	31.69

The total expenditure on account of bankruptcy proceedings for the year ending 31st March, 1886, was $842,736, while the receipts for the same period were $964,068, showing a surplus of $121,332.

A striking evidence of public confidence in the act is given in comparing the proportion of bankruptcies to schemes and compositions with a similar proportion under the old act.

It may be assumed [says the report], looking to the actual testimony of experience regarding the conduct of insolvent debtors, that under any really sound system of administration which takes that conduct into account, schemes of arrangement and compositions under which a debtor secures his discharge will be the exception and

The following table shows the above-mentioned proportions:

Percentage of adjudications, schemes of arrangement, and compositions to total cases.

Period.	Adjudications.	Schemes.	Compositions.
	Per cent.	*Per cent.*	*Per cent.*
Old act.			
Average of thirteen years from 1869 to 1882	11.86	53.25	34.89
Year 1883	12.23	53.43	34.34
New act.			
Year 1884	90.03	1.72	8.25
Year 1885	91.51	1.80	6.69

We see that under the new act 91½ per cent. of cases have been adjudications against 12 per cent. under the old act, a significant proof of public confidence in the honesty, celerity, accuracy, and comparative inexpensiveness of official administration.

The following table shows the average assets and liabilities per case in adjudications, schemes, and compositions:

Period.	Adjudications.			Schemes.			Compositions.		
	Assets.	Liabilities.	Percentage of assets to liabilities.	Assets.	Liabilities.	Percentage of assets to liabilities.	Assets.	Liabilities.	Percentage of assets to liabilities.
Old act.									
Average of 13 years, 1869–1882	$3,557	$21,091	17	$4,087	$11,421	35	$2,243	$7,703	29
Year, 1883	2,151	20,103	11	4,827	13,884	35	1,640	6,472	25
New act.									
Year, 1884	3,596	13,845	26	28,876	41,579	70	11,100	22,054	30
Year, 1885	2,963	9,202	32	32,933	46,640	51	4,934	13,314	37

The following table, which tells us of a loss to creditors in sixteen years through bankruptcy proceedings of $1,166,000,000, is a striking commentary on human frailty; for experience has shown that the great proportion of bankrupts are such from their own ignorance, recklessness, or want of principle.

Estimated annual loss arising to creditors in England and Wales through bankruptcy proceedings during the period from 1870 to 1885.

Year.	Assets.						Total liabilities.†	Net estimated loss to creditors.
	Liquidations.	Bankruptcies.	Total.*	Amount after deduction of one-third for expense of realization.	Compositions.†	Total assets for dividends.		
1870	$10,877,556	$9,565,538	$20,443,094	$13,628,730	$5,746,134	$19,374,864	$84,951,710	$65,576,846
1871	11,943,899	2,699,788	14,643,687	9,762,457	5,833,507	15,595,964	68,904,086	53,308,122
1872	12,926,655	3,027,673	15,954,328	10.636,217	5,042,657	15,678,874	69,529,719	53,850,845
1873	19,634,152	3,284,999	22,919,151	15,279,432	5,978,695	21,258,127	93,362,887	72,104,760
1874	16,847,302	2,362,418	19,209,720	12,806,481	7,224,368	20,030,849	97,995,104	77,964,255
1875	22,378,468	4,675,514	27,053,982	18,035,988	8,630,986	26,666,974	124,259,478	97,592,504
1876			21,497,334	14,331,555	8,506,865	22,838,420	101,580,152	78,741,732
1877					7,233,570	21,842,000	94,798,724	72,956,724
1878							145,867,205	113,837,333
1879								
1880								
1881								
1882								
1883								
1884								
1885								

Though the new act is not without defects, which will probably be corrected by the legislature as time shall disclose them more fully, it is a natural evolution through numberless statutes from the simple beginning of Henry VIII, and is a vast improvement upon its progenitors. One cannot regard with favor the extreme tendency towards centralization existing now in Britain, nor can one sympathize with the demand so generally made that Government shall attempt a solution of every social problem; but a stringent control of bankruptcy matters is peculiarly within the province of the supreme authority of the state, and is essential to the healthy development of commerce and commercial morality. In exercising this power the British Government has produced a bankruptcy law highly beneficent in its effects, and worthy the most careful study and attention of other nations.

SUGAR.

The beet crop of the world in 1870 reached 942,000 tons, while in 1884–'85 it had increased to 2,545,000 tons. The cane crop in 1870 was 1,661,000, while in 1884 it reached 2,260,000 tons. Thus in 1870 the beet industry produced 37 per cent. of the total supply, while in 1884–'85 it produced 53 per cent.

The consumption of sugar in the United States and Europe has risen from 2,600,000 tons in 1880 to 3,700,000 in 1885; but production, fostered and stimulated by the continental bounties on beet-root growing, has outstripped consumption.

The proportion of bounty-fed and non-bounty-fed sugar in the consumption of the United Kingdom has risen from 5 per cent. in 1863 to 26 per cent. in 1873, to 37 per cent. in 1878, and to 55 per cent. in 1885.

Bounties have been largest in Germany and Russia. During the first nine months of 1886 Great Britain imported from Germany nearly 4,000,000 cwt. of raw sugar, and 1,250,000 cwt. of refined sugar not one pound of which would have been imported, nor would the beets that made the sugar have been grown, perhaps, if natural laws had been allowed to govern the competition between cane and beet sugars; but under the fertilizing effects of the bounty the German crop has increased from 412,000 tons of roots in 1879–'80 to 2,500,000 in 1884–'85. The bounty amounts to about $9.70 per ton of sugar, but it is difficult to say exactly what it is, owing to the indirect method of figuring it, the method pursued being to levy a duty or tax upon the growth of beet-root, and then upon its manufacture into sugar to repay the tax upon the assumed or estimated number of tons of beet that were employed. In practice this estimate is always too high; in other words, the saccharine matter in the root is much underestimated, and hence the receipt of a drawback on numbers of acres of beets never grown. The method is analogous to that until very lately in existence in the United States for paying a veiled bounty to refiners, and, though commending itself to France so strongly that it has lately adopted the same system, our consul-general at Berlin in a late able report tells us that it is so unsatisfactory in its results to the Germans that strenuous efforts will be made to alter it.

The import of refined sugar from Russia sprung from almost nothing in 1875 to 800,000 cwt. in the first nine months of 1876. Under the influence of a heavy protective duty the beet crop rose from

$1.50 per cwt., which was afterward reduced to $1.20. The measure was not intended to be permanent. The Russian minister of finance is reported to have declared in April, 1886, that the then existing bounties had had the desired effect of freeing the Russian market from the accumulated stocks, and that it was not the intention of the Government "to supply foreign consumers with cheap sugar at the cost of the Russian state and of Russian consumers." I have in vain sought for information as to whether this bounty still exists, but it is believed in England that it does, though the accumulated stock having been got rid of it does not stimulate exports as formerly.

The import of refined sugar from France during the first nine months of 1886 was less than 500,000 tons. This nation, the first to adopt, more than twenty-five years ago, the sugar-bounty policy, stimulated production to a maximum of 465,000 tons of beet roots in 1875. In this year reductions were made in the amount of bounty, and again in 1880, and production fell off to about 300,000 tons. But in 1884 a heavy bounty was again granted to certain classes of sugars to enable them to compete with what is known as moist sugar in England. Naturally the makers of loaf-sugar also demanded state aid, with the result of the introduction this year of the German system so well worked as to produce enormous bounty. The effect of this new legislation has just been felt in this country. Fine French crystals are selling for about $3.50 per cwt. It is this irruption of French sugar which has so suddenly supplanted the American granulated since November, 1886, though the simultaneous lowering of the American drawback was also a factor, though I suspect not quite so important a one.

The import of refined sugar from Holland and Belgium—all bounty-fed—amounted during the first nine months of 1886 to nearly 1,000,000 cwt.

The imports of refined sugar from the United States were, in 1883, 6,254 tons. In that year a rate of drawback was established that amounted to so considerable a bounty that in 1884 the import sprang up to 52,113 tons and in 1885 to 114,930 tons, and during the first eleven months of 1887 to 1,418,110 cwt. (70,900 tons). The secretary of the British Sugar Refiners' Committee said in April, 1886:

> I am in a position to state that it—the sugar bounty in America—is exactly £2 ($9.70) per ton or 2*s.* (48 cents) per cwt.; that is the legal bounty.

How he got into a position that enabled him to state what the American Government and many individuals were endeavoring in vain to discover, I am unable to say; but from his statement and those of others, it may be said that the general idea in England is that the American bounty amounted to between $7.40 and $9.70 per ton. The Russian, German, and American bounties have been what the English refiners particularly feared during the past year. They could cope, they said, with the French, Dutch and Austrian, but they find they cannot cope with the new French bounty. The reduction of the United States drawback, which went into effect on November 1, 1886, on refined sugar, from $2.82 per pound to $2.60 was simultaneous with a [illegible] of absurdly cheap crystals (the effect of in- [illegible] has been driven

regardless of returns. We have seen that in Russia in 1875, and in France in 1886, when the home market became blocked, the Government interposed and paid the refiners largely that they might ship abroad. In Germany last year the refiners voluntarily limited production, or there, too, would have been observed an enormous overplus which refiners would in a probability have asked the state to help them unload. The fact is, the continental sugar industry has become a confirmed parasite of the state and is helpless, enfeebled, and doomed to die if the support be removed. The United States refiners cannot compete in Europe unless they, too, are subsidized by the Government.

It is worthy of attention that the English refiners are not only handicapped by the actual cheapness of foreign refined sugar, but also by the uncertainty that attends the action of foreign Governments. The enormous bounty of Russia came without notice, and is said to have reduced the values of fine sugars 75 cents per cwt. The bounty lately introduced by France has cut prices severely. If the refiners are stimulated to economy in processes and to improvements in machinery, to meet the foreign competition, they no sooner go earnestly to work than they are disconcerted by some unexpected foreign action. So they are all thoroughly discouraged, and one by one are closing their refineries. In this connection it is worthy of note that the receipts of unrefined sugar in Great Britain for eleven months of 1886 from the Continent, as compared with corresponding period of 1885, show a falling off of 67,413 tons, while the corresponding figures with respect to refined sugars show an increase of 64,000 tons. A volume could not show more clearly than do these figures the disadvantages under which English refiners work.

Again and again have they petitioned the Government for aid. Again and again have they pointed out that not only were large refining interests ruined in England and thousands of men driven out of employment, but that large cane plantations in the colonies, particularly in the West Indies, were going out of cultivation, that their owners were being ruined, and that their laboring population were reduced almost to starvation. But the answer of the Government has always been that if foreign Governments were guilty of the economic folly of providing cheap sugar for England, that England would not balk their aims by interposing a countervailing duty. But this answer has been esteemed by failing refiners and ruined planters as poor consolation; and the people who have had the benefit of the cheap sugar, I think, so far as I can judge, agree with them, and would willingly sacrifice a penny or two a pound on sugar, and, in this particular instance, their robust free-trade principles, in order to maintain their domestic and colonial sugar interests.

EXPORTS.

The general export trade from this consular district for the past year needs no special comment, as its condition remains about as last year. The experience of a large firm of galvanized-iron manufacturers, in shipping their product hence to Australia, is worthy of note, however. It appears that an Australian freight ring of great power exists in London, and that the Bristol firm, in order to be able to ship at all, were forced to sign an agreement binding itself to ship

with the result that the ring refused to carry their goods any more except at a prohibitive rate. "The consequence is," say this firm, "we must either submit to the dictation of the ring or combine with others to oppose. The combination is most injurious to artisans, merchants, manufacturers, ship-owners, and Australian colonists. It is also a potent cause of depression in trade by unduly weighting English manufactures with rates of freight in excess of what foreign manufactures pay to our own colonies."

The exports from this consular district to the United States show an increase of $50,000 in value for the year ending September 30, 1886 (Tables D and E). The decrease in exportation of tin-plates ($109,000) is nominal not real, owing to the circumstance that these shipments, though still leaving Bristol, are declared at other consulates, mostly at London. The increase of $7,000 in the value of Bath bricks shipped is due to enlarged production, a new company having been organized to handle the peculiar scouring-sand of the Parrett River bed. The new export of $63,000 worth of woolen yarns is due to the enterprise of a single firm who inaugurated a trade by sending a traveler to the States. The shipment of waste-lead fumes is a new export of lead fumes, which are secured by a patent process, instead of, as is often the case, being lost. The product is cheaper than zinc fumes, and to some extent is capable of taking the place of the latter in manufacturing. The export of wool from this district is due to the great demand in the States, which induced American buyers to scour this country thoroughly for small lots.

IMPORTS.

The import trade of Bristol is largely made up of provisions. In this connection I wish to draw special attention to the way in which Canadian cheese has supplanted the United States product. The Canadian cheese is imported each year in increasing quantities in the Bristol district, and finds each year increasing favor, both with dealers and consumers. While the import of all foreign cheeses fell off in Liverpool in 1886 by 250,000 boxes, the import in Bristol from Montreal increased by 12,000 boxes—total for year 201,000 boxes—and the receipts from New York fell off considerably. Great Britain manufactures each year 135,000 tons—and good cheese, too—valued at about $35,000,000. Now, the very prince of English cheese is held to be the Cheddar, made in Somerset; and yet Canadian cheese made on the Cheddar principle has actually, right here in Somerset, where I write, been sold for a penny a pound more than a cheese actually made in Cheddar Valley.

There is a hot controversy now raging in the English papers as to whether Cheddar cheese is the result of particular herbage and pasturage, or of a particular mode of manipulating the milk; and I think that all but Somersetshire men are pretty well agreed that this toothsome cheese is the result of superior methods rather than of special grasses. And the Canadians have gone on improving until they have surpassed their teachers; but the United States do not appear to have [illegible] they consume their best makes

American products are held to be lacking, leaving it to those who manufacture at home to seek out the causes and supply deficiencies.

The import of both Canadian and States butter has fallen off somewhat during the past year, owing principally to the fact that butterine made on the continent has been more acceptable to the palates of those who sought a cheap butter than the real article, if it had become, as it sometime does, stale. But here, again, we find the falling off largely with the States butter.

I am indebted to Mr. Symes, our vice-consul at this port, for the following report on American bacon. The recommendations therein contained are worthy of careful attention, as Mr. Symes has a large practical knowledge of this trade.

The consumption of American bacon in this district during the past year or season has been somewhat limited, the much more extensive breeding and feeding of hogs both in Ireland and England being the cause, as was the case last year, of all the markets being well supplied with what is described here as home-cured meat, which as a rule is preferred by the English public. As long as feeding stuffs are so plentiful and obtainable at such low range of values, as now for some time has been current, this state of things is certain to continue in Great Britain and Ireland.

Complaints have been made this year that the American packers have gone to the other extreme in respect to salting their meats, and whereas before this present season the article was objected to because it was too heavily salted, it is now losing favor and values are often somewhat depreciated, because there is not sufficient salt used either in the curing or the packing.

Singed and scalded long sides, Cumberland cut and bellies, have no doubt been shipped insufficiently cured and insufficiently salted to stand all the risks of the voyage of importation, consequently much bacon that no doubt when it left the packers' hands was apparently good and handsomely packed, has, on its arrival in the English markets, become more or less out of condition, and disappointing to the importer. On the other hand it must be admitted that some sorts, for instance, long clear backs, singed Staffordshire and hams have been well cut, well packed, and found more favor than ever. The condition and appearance of these meats have certainly on their arrival been more tempting to buyers, and all that could reasonably be desired, giving, to say the least, general satisfaction and meeting a good and fairly ready sale.

The system of packing bacon in borax is losing favor; in fact, there is a growing objection to this style of packing, as the meat will not keep good, and invariably if the importer cannot place it immediately on its arrival for prompt and quick sale he suffers loss by deterioration, &c.

The demand for American bacon will not continue at all on a large scale unless more care than ever is bestowed, (1) in the cut—the pieces of the hog must be neatly cut and trimmed uniform in size and evenly cured; (2) in the cure—the cure must be complete so that the meat cannot become tainted; (3) in the packing—salt is necessary not only to keep the meat clean but to prevent injury from heat and other causes whilst in transit *en voyage*.

Bacon packed in salt seems to stand the voy[illegible]

PETROLEUM.

Petroleum was imported into the United Kingdom in 1886 to the extent of 1,250,000 barrels, of which 120,000 came to Bristol. Last year the Russian opposition menaced our English market, but during 1886 the Baku product has been out of the field, though to keep it out prices ranged unusually low during the year, though in December they recovered to 14 cents per gallon. It seems from what I can hear within the limits of my district, that the question as to whether it shall be Russian or American petroleum is entirely or almost entirely a question as to price. Though the oiis appear to differ somewhat in their attributes, yet what one lacks in one respect appears to be compensated by some advantage in another respect. We have the control of the trade and a reputation for our brands, and the Russians must give decided advantage as to price to overcome these; and it is doubtful if they could do this, with the wasteful methods in vogue at Batoum, even if the American refiners were supine during the contest, which is rather far from likely. Russian petroleum would probably not have been seen on the British market in 1885 had it not been for the continued complaints from consumers as to the quality of the American oil. When the quality improved, the Russian oil was driven out of the market. A large dealer writes me:

> In consequence of the American refiners having reverted to the satisfactory standard of quality which they formerly shipped, and which gave satisfaction in this market, the demand here for Russian has become very small and this will no donbt continue as long as the quality of American is maintained.

Another very large firm of importers do not, I regret to say, speak so well of the quality of the oil, and they specify one cargo, "shipped under what are considered the most favorable climatic conditions, viz, in June," in regard to which "much fault was found."

The petroleum tested during the year ending May 31, 1886, by the British Petroleum Association was almost entirely American. About 2,000 samples flashed under 77°, while 914 flashed at or above 77°. Of the high test the greatest number flashed about 107°. As to color, 57.6 per cent. were graded as standard white, 27.4 as prime white, 3.5 as superfine white, and 6.6 as water white. About 5 per cent. were inferior to standard white in color, but the inferior stuff was usually so distributed as to be within the proportion, and only about 15,000 barrels out of 582,000 were certified as unavailable for tendering on contract.

There seems to be imminent a change in methods of conveyance, and tank-steamers will probably be more and more used. A considerable number are already in use by the Russians. Their employment will probably considerably reduce the cost of carriage notwithstanding that they must return in ballast. Their introduction has met with disfavor in New York amongst a class whose labor in some degree they supplant, but the objections to them would apply to any new mechanism that saved labor, and it is to be hoped that if they are found to be a real advantage, their introduction will not be delayed even though it involve [illegible] procedure. The explosion at Liver- [illegible] will probably be used [illegible]

prices which have fluctuated only a little, but which have in the net result left us on a level some 5 per cent. lower than occupied twelve months ago. On the whole the business done has been sound and healthy, and our factors and merchants have not to mourn over any large deductions from their profits caused by the failure of their correspondents. In American leather it gives us pleasure to record a very considerable augmentation of the trade of this port. Other houses have shared in this development, and, speaking for ourselves, we find that during the nine or ten months of 1886 already elapsed we have already imported 30 per cent. more weight of American produce than we did during the whole of 1885, and for it all we have had a ready market. The traffic has obtained indeed a firm foothold here, and exists on such a basis as promises to secure its permanency. A healthier specimen of trade and commerce it would not be easy to discover.

The comments of this firm on the increase of the American leather trade are of the same tenor as the information I have received from Davies & Co. and other large factors. It is a pleasure in these days of depression and gloom to be able to record such satisfactory conditions obtaining in our American export leather trade.

NAVIGATION.

I have dealt so fully in previous reports with the general trade conditions existing at Bristol that it is unnecessary for me here to go into them at any length, though I must not omit to mention the important operations that have been carried on by the city government to improve the navigation of the Avon. The effect of the extensive work of the city will not be entirely perceptible for another year to come, but at the expiration of this period the depth of the river from the Bristol docks to its junction with the Bristol Channel will practically be increased by 3 feet, thus opening the river to vessels drawing 27.6 feet; a signal improvement, and one that will probably result in the discharge at Bristol of many cargoes that are now discharged at some inconvenience at the city's docks at the mouth of the Avon.

In concluding, I wish to express my appreciation of the courtesy of Mr. F. B. Gridlestone, the secretary and general manager of the Bristol docks, who is always most kind in extending what information I may desire relative to his department.

LORIN A. LATHROP,
Consul.

UNITED STATES CONSULATE,
Bristol, January 7, 1887.

TABLE A.—*Value of real property in the United Kingdom, calculated by reference to the assessments to income tax for the year* 1883–'84.

Description.	Income.	No. of years' purchase.	Capital value.
Lands	$318,473,493	25	$7,961,837,325
Messuages and tenements	618,288,825	16	9,892,621,200
Other profits from land (manors, fines, &c.)			

TABLE B.—*Value of personal property in the United Kingdom, calculated, so far as is possible, by reference to the assessments to income tax for the year* 1883–'84.

Description.	Income.	No. of years' purchase.	Capital value.
Farming stock and implements of husbandry			$1,459,950,000
Funded and unfunded debt, metropolitan and municipal stocks, excluding those portions held for public or charitable purposes (partly estimated)			3,696,462,004
Indian, colonial, and foreign Government funds	$99,203,602	25	2,480,090,050
Mines (one-half)	17,188,478	7	120,319,346
Iron-works	14,653,031	4	58,612,124
Gas-works	23,743,653	20	474,873,060
Water-works (four-fifths)	11,713,665	20	234,273,300
Canals, &c. (one-half)	8,185,453	20	163,709,060
Public companies (other than companies carrying on concerns specifically described)	165,144,677	15	2,477,170,145
Foreign and colonial securities	47,039,589	15	705,593,835
Railways in United Kingdom	160,852,424	25	4,021,310,600
Railways out of United Kingdom	18,385,637	20	367,712,740
Mortgages and other loans on the security of the rates	24,424,963	25	610,624,075
Other profits	6,355,649	20	127,112,980
Trades and professions (one-fifth of total income of 180 millions, sterling)	175,194,000	15	2,627,910,000
Total under income tax			19,625,723,319
Income of non-income-tax paying classes derived from capital	291,990,000	5	1,459,950,000
Foreign investments not in Schedule C or D	145,995,000	10	1,459,950,000
Movable property not yielding income, *e. g.*, furniture of houses, works of art, &c			4,866,500,000
Total value of personal property in the United Kingdom.			27,412,123,319

TABLE C.—*Return of Imperial taxation exclusively borne by real and by realized personal property, respectively.*

Amount of taxes exclusively borne by real property.			
Income tax, at the rate of 5*d.* (10 cents) in the £, or a little over 2 per cent.		$18,539,160	Duty charged 1883–'84.
Probate and legacy duty (portion of)	$4,136,525		Based on actual receipts for 1883–'84.
Succession duty (portion of)	3,309,220		
		7,445,745	
Total death duties		5,161,040	
Land tax (Great Britain)		9,934,380	Duty charged 1883–'84
Inhabited house duty (Great Britain)		41,080,325	
Total taxation 1883–'84			
Amount of taxes exclusively borne by realized personal property.			
Income tax, at the rate of 5*d.* (10 cents) in the, £ or a little over 2 per cent.		18,722,355	Duty charged 1883–'84.
Probate and legacy duty (portion of)	27,782,848		Based on actual receipts for 1883–'84.
Succession duty (portion)	778,640		
		28,561,488	
Total death duties		47,283,843	
Total taxation 1883–'84			

SCOTLAND.

Report of Consul Wood.

The manufactures of jute are, as is well known, the chief industry of this consular district. Nearly two-thirds of the whole production find a market in the United States. Next in present importance are the manufactures from flax and of a combination of jute and flax, the fabrics of which are largely classed as linens. In the town of Dundee there are only two or three of the large number of mills that produce flax goods, these manufactures being carried on in the outlying towns of Forfarshire and in Fifeshire south of the Tay. In the trade with the United States from this district these two manufactures make about 97 per cent. of the whole exportations to the United States, the ratio being 63 per cent. of jute goods and 34 per cent. of linen goods for the year ended September 30, 1886. These are about the average percentages for several years past, though there was a noticeable increase in linens in this year. In addition a small trade is done in herrings, potatoes, seal-leather, seal-skins, and in a few other miscellaneous articles, but in all amounting only to about 3 per cent. of the general trade with the United States. Of the whole production of jute goods the United States take about 60 per cent., the remainder finding a market in England, South America, and British colonies.

To the exportations made directly from Dundee should be added those from the consular agency at Aberdeen, which amounted for the year ended September 30, 1886, to $290,841.74 in declared value. Of this amount 54 per cent. in value was for exportations of polished granite, 24 per cent. of linens, 14 per cent. of woolen goods, and the remaining 8 per cent. of miscellaneous articles, such as paper, herrings, machinery, and potatoes.

As a means of comparison for a considerable period the following table shows the declared value of the exports from this consular district to the United States for the several years named:

Years.	Value.	Years.	Value.
1877	$4,670,594	1882	$7,604,358
1878	4,524,756	1883	7,674,074
1879	4,977,319	1884	7,432,670
1880	7,986,109	1885	6,126,436
1881	7,188,818	1886	6,567,732

The foregoing table shows that during the year 1886 there was an increase over the year 1885 of $441,306 in declared values of exports to the United States, or of about 7 per cent. But in linens there was an increased value of $521,971.89 over that of the preceding year, or 34 per cent. In the values of jute goods, however, there was a slight decrease of seven-tenths of 1 per cent. or $24,200.17. The actual quantity of these goods was greater than in 1885, and the decrease in values was owing to the low prices that prevailed during the most of the year. In nearly all the miscellaneous articles there was an increase in 1886, but notably in potatoes of $34,000, and in

ever, it is to be said that the depression related to prices only; the quantity of goods shipped was not diminished. In consequence of the production of the same goods in India, the market was no doubt for a time oversupplied, especially in coarser grades; yet shipments continued in their ordinary volume to the United States. The prices of standard burlaps, 40 inches wide and weighing $10\frac{1}{2}$ ounces, were stated in the report adverted to to range from $1\frac{7}{12}$ pence to $1\frac{15}{24}$ pence per yard, but during 1886 these prices were further reduced to $1\frac{5}{12}$ and $1\frac{7}{12}$, at which they remained until about September last, since which some little rise has taken place. A difference of one-twelfth in these prices is about 4 to 5 per cent. as nearly as may be. It is doubtful that any money was made at these low prices. It is known indeed that some mills have been obliged to write off losses of considerable amounts. With the prices for these goods existing during the latter part of 1886, it is probable that some profit is making, especially by the best-fitted mills. These prices may be stated at from $1\frac{7}{12}$ to $1\frac{15}{24}$ pence per yard for the standard burlap of 40 inches and $10\frac{1}{2}$ ounces in weight. They are based on the condition of trade in the United States, and are said to give encouragement to the manufacturers here.

At the close of 1886 the prices of burlaps were as set forth in the following table:

Weight.	Price in pence.	Weight.	Price in pence.
$7\frac{1}{2}$ ounces	$1\frac{2}{24}$ to $1\frac{3}{24}$	10 ounces	$1\frac{12}{24}$ to $1\frac{13}{24}$
8 ounces	$1\frac{4}{24}$ to $1\frac{5}{24}$	$10\frac{1}{2}$ ounces	$1\frac{14}{24}$ to $1\frac{15}{24}$
$8\frac{1}{2}$ ounces	$1\frac{6}{24}$ to $1\frac{7}{24}$	11 ounces	$1\frac{16}{24}$ to $1\frac{17}{24}$
9 ounces	$1\frac{8}{24}$ to $1\frac{9}{24}$	$11\frac{1}{2}$ ounces	$1\frac{18}{24}$ to $1\frac{19}{24}$
$9\frac{1}{2}$ ounces	$1\frac{10}{24}$ to $1\frac{11}{24}$	12 ounces	$1\frac{20}{24}$ to $1\frac{21}{24}$

The prices of raw jute for the year 1886 and for 1885 are set forth in the following table:

Quality.	Price per ton.	
	1885.	1886.
	£ s. £	£ s. £ s.
Fine	13 10 to 16	13 0 to 15 10
Good medium	11 0 to 12	11 10 to 12 10
Medium	10 0 to 11	10 10 to 11 10
Good common	9 0 to 10	9 0 to 10 0
Rejections and commons	7 0 to 8	8 0 to 8 10

In connection with the general manufacture of jute fabrics in the United Kingdom the statistics of the following tables are of some interest:

The following table shows the total exportations of jute yarns for the years named, and the countries to which exported:

The exportations of jute bags and sacks are shown in the following table:

To—	1884.	1885.	1886.
	Dozens.	*Dozens.*	*Dozens.*
Australia	202, 537	119, 690	181, 696
Germany	861, 878	555, 705	434, 887
Russia	581, 838	714, 373	742, 796
United States	296, 847	207, 354	258, 995
Other countries	2, 283, 980	1, 865, 785	2, 074, 969
Total	4, 227, 080	3, 462, 907	3, 693, 343
Declared value	£1, 038, 079	£761, 550	£670, 094

It will be observed from these tables how rapidly and to what an extent the exportation of jute yarns has increased. In 1886 the quantity exported hence to the United States was very nearly twice what it was in 1884, and nearly 50 per cent. more than it was in 1885. These yarns are largely used in carpet manufactures, and in a certain degree the increase measures the increased manufacture of these articles in the United States. In the United States very little jute-yarn spinning is done. The difference in wages between Dundee and the United States is more than enough to outweigh the cost of the yarns with the duty added. The wages of spinners here are about 9 shillings, say $2.25, a week. In the United States the wages are about $6 a week. It was at this rate that a company of spinners were engaged here in 1886 for work in the jute-mills at Oakland, Cal.

It is to be observed also that the exportation of bags and sacks has not materially changed for several years past. In 1884 the exportation amounted to 296,847 dozens. In 1885 it fell to 207,354 dozens, but in 1886 there was a slight rise to 258,995 dozens. Until about six years ago these bags were a very large item of export from Dundee, the average being about 1,000,000 dozens a year. The mills of India have, however, now in great part driven the Dundee exporters from the market. It is probable that nine-tenths of the bags used on the Pacific coast are supplied from India, while formerly Dundee had almost a monopoly of this trade.

A fall in prices will also be noticed since 1885 in both jute yarns and bags and sackings. The declared value on over 25,000,000 pounds of yarns in 1884 was £311,552; in 1885 on over 29,000,000 pounds the declared value was £266,734, and in 1886 on over 30,000,000 pounds this value was only £280,096. So also in bags and sacks. In 1885 the declared value of over 3,000,000 dozen bags was £761,550. In 1886 this value on about the same quantity was only £670,094.

The condition of the jute trade in Dundee will appear in a measure from the foregoing statistics. The depression in prices that prevailed all through 1885 continued without change for the better until late in 1886. The slight revival that took place in September of that year, and is yet felt, while it has in it some grounds of encouragement, is yet so small as to yield only the scantiest profits if any at all; and it is of so doubtful permanency that prices may at any time return to the former low condition.

There was

availed the trade. No efforts in this direction have been attempted during 1886. In India, however, the mills went on short time, and have continued so more or less during the year. There seemed a concurrence of opinion that a decrease of production both in Dundee and India would operate towards an increase of prices more quickly and to a more satisfactory degree than in any other manner. But so long as any of the larger mills decline to enter such a compact the plan could not be carried out.

The manufacture of jute in Dundee goes back only about fifty years, and was undertaken in doubt and prosecuted for many years under much discouragement. A great difficulty was found in the ignorance of the proper treatment of the fiber. At first the manufacture was not a separate one, but the jute was combined with flax and tow. In a considerable degree this is still done. Later on the cheapness of the fiber, when its varied utility became known, made it available for coarser cloths, and the manufacture of jute goods unmixed with flax began its development. This has led to the change in machinery, from flax to jute spinning, until only two or three mills in the town are engaged on flax goods. The first great advance came with the Crimean war, and the manufacture was very largely extended during and after the late American war. The rise and progress of the trade seem, in fact, to have depended on, as they were certainly promoted by, the existence of war in some quarter. At such a time jute goods are in the largest demand. Even a rumor of war has a stimulating effect, as was observed during the difficulty with Russia in 1885.

The depression of the trade in Dundee, and still existing, began about the year 1880. It has not been owing to any demand for new or different fabrics that are taking the place of those of jute; the volume and variety of manufactures are quite as good as at any time, and even larger. The causes of the depression are found rather in the erection of mills on the Continent and in India, with consequent overproduction, and in adverse tariffs that have shut out the Dundee goods from their former markets. The exportation of jute goods from India was very small until about the time of the opening of the Suez Canal, and the manufacture there was chiefly of gunny cloths, which were consumed by the native population. Dundee had the markets of Australia, the Cape Colony, Egypt, the Continent, and South America, besides that of the United States. Now there are over 20 mills in India with 8,000 to 10,000 looms, and 200,000 spindles. The United States have been the most important and desirable market for Dundee, and have taken, as they continue to take, over 60 per cent. of the production. But at this time the Indian goods are competing in every class except perhaps in the finest grades.

In the material for grain bags and sackings, in which the Dundee trade was, as has been said, very large, the Indian mills have been able almost to close the United States as a market for the same goods from this district. In the finer classes of manufactures, however, the com- of machinery and the skill of the workers have enabled Dun- hours and cheaper labor on the labor in India

the Dundee production in markets that the latter had held exclusively for many years.

The markets for jute goods are chiefly foreign, it being computed that not over 10 per cent. of the production of the United Kingdom is consumed at home. Even this market has been of late seriously invaded from India, particularly in the coarser goods. With the closing of the continental markets, the competition of the trade of the United States has grown even keener than formerly. A monopoly for Dundee no longer exists in these manufactures. The former great and rapidly made fortunes are now no longer possible to be gained, and the changed condition must before long suggest to all concerned, whether employers or employed in this chief industry of the town, the necessity of such combination of effort as will save an adequate share in all available markets for their goods.

Coming now to the statistics of the jute trade, the following table shows the importations of raw jute into this port, both directly from India and otherwise, for the last seven years:

Year.	Total importation.	Direct importation.	Year.	Total importation.	Direct importation.
	Tons.	*Tons.*		*Tons.*	*Tons.*
1880	139,847	103,433	1884	130,151	109,777
1881	160,089	147,622	1885	175,672	172,222
1882	168,786	153,141	1886	182,354	168,027
1883	233,883	205,809			

The prominence of Dundee in the manufacture of jute is shown in the following tables of spindles, looms, and persons employed:

Country.	Jute-spinning spindles.				Doubling spindles.			
	1870.	1874.	1878.	1885.	1870.	1874.	1878.	1885.
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
Scotland	94,520	185,419	183,056	225,399	5,804	7,658	5,855	10,030
Ireland	4,194	13,738	5,858	5,270	30	338	230	200
England	10,286	21,754	23,762	22,510	322	1,278	1,407	794
Total	109,000	220,911	212,676	253,179	6,156	9,274	7,492	11,024

Country.	Looms.				Persons employed.			
	1870.	1874.	1878.	1885.	1870.	1874.	1878.	1885.
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
Scotland	3,744	8,325	10,009	10,856	14,911	30,893	30,401	36,269
Ireland	108	347	222	232	727	2,094	922	961
England	478	927	1,057	995	1,932	4,933	4,961	4,444
Total	4,330	9,599	11,288	12,081	17,570	37,920	36,283	41,674

LINEN TRADE.

The declared value of the exports of li

for the year is noticeable. Prices have, however, been low, and though the volume of business was greater it is not probable that more than a moderately fair profit has been made. The trade is not perhaps in a flourishing condition, but it has not to deal with the low prices of jute goods. Both spinners and manufacturers complain indeed of low prices, and in yarns there has no doubt been serious competition from the Continent. But such complaints must be taken as having a comparative significance only. Good prices are measured by the extremely high prices of exceptional periods—as during the late war in America—in which fortunes were rapidly accumulated. Prices are close, no doubt, and competition with Belfast and German linens keen; but there are few indications, such as failures, the closing of mills, short time, or reduction of wages, that suggest that a fair profit is not received on the capital invested. Men favor or condemn a market according to the sale of their wares, and an increase in orders makes trade good for those that receive them, while those that fail to get them are loud on its dullness and decay. With others the complaint of bad times is rather a habit—a sort of business expectoration that means nothing more than a preface to a talk. With the mills in this district the chief production was formerly of flax goods, but now jute and flax, or jute and cotton are used together to such an extent that comparatively little of pure flax goods are made, although they are sold as linen goods. It is not that less money is made in manufactures of flax, but rather that other fabrics have been in demand in which jute or cotton have in part taken the place of flax.

The following table shows the quantities of flax and tow and codilla imported into this district for the years named:

Year.	Flax.	Tow and codilla.	Year.	Flax.	Tow and codilla.
	Tons.	*Tons.*		*Tons.*	*Tons.*
1882	48,490	12,092	1885	43,171	6,426
1883	35,226	8,685	1886	24,114	6,692
1884	35,174	6,464			

Apart from the statistics of Scotland relating to the flax industry, those which show the condition of spinning and weaving throughout the United Kingdom are of interest. The following tables present the figures:

Country.	Flax-spinning spindles.				Doubling spindles.			
	1870.	1874.	1878.	1885.	1870.	1874.	1878.	1885.
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
Scotland	317,085	275,119	265,263	220,644	13,514	15,432	18,495	22,629
Ireland	896,482	906,946	808,695	817,014	20,178	18,616	18,048	19,262
England	269,768	291,735	190,808	117,559	32,520	47,287	28,439	23,269
Total	1,483,335	1,473,800	1,264,766	1,155,217	66,212	81,335	64,982	65,160

WHALE AND SEAL FISHING.

Dundee is the chief port—almost the sole one—in the United Kingdom, from which the whale and seal fishing is now carried on. It has held this position for many years, and the industry was for a long period successfully followed. A ready market is found in Dundee for the oil, which is largely used in the manufacture of jute. For some years past, however, the results of the fishery have been very unsatisfactory, and it is doubtful that in 1886 even the expenses were paid.

The ships, all of which are steamers, leave Dundee about the 1st of March for the seal fishing, returning so as to be ready to leave again for the whale fishing about June 1. The seal fishing is prosecuted in Labrador mainly, and the whale fishing in Davis Straits. This year, however, one vessel visited Fox's Channel, but with small success, two whales only having been taken. Four ships—the Jan Mayen, the Star, the Triune, and the Resolute—were lost.

There are given below some tables that show concisely the particulars of this industry for a series of years:

Year.	Seal fishing.			Whale fishing.		
	Ships.	Seals caught.	Oil.	Ships.	Oil.	Bone.
	No.	*No.*	*Tons.*	*No.*	*Tons.*	*Tons.*
1876	12	57,770	625	12	824	.....
1877	13	76,000	1,092	13	955	.....
1878	12	77,411	1,106	13	114	.....
1879	15	96,710	1,168	13	729	.....
1880	13	88,040	1,215	12	1,077	.....
1881	15	152,700	1,998	11	514	.....
1882	10	81,123	967	12	780	28
1883	13	113,353	1,460	8	628	9½
1884	19	51,294	711	9	953	.....
1885	11	84,140	1,100	16	411	10
1886	9	49,810	635	11	412	12

Values of whale and seal fishery.

Year.	Articles.	Unit.	Prices per unit.	Total values.
			£ s. d.	
1881	Whalebone	Per ton	720 0 0	£17,820
	Whale-oil	do	33 0 0	16,962
	Seal-oil	do	29 0 0	57,942
	Seal-skins	Each	5 0	38,176
	Total			130,900
1882	Whalebone	Per ton	1,150 0 0	32,200
	Whale-oil	do	33 0 0	28,710
	Seal-oil	do	30 0 0	29,010
	Seal-skins	Each	5 0	20,280
	Total			110,200
1883	Whalebone	Per ton	1,750 0 0	16,625
	Whale-oil	do	35 0 0	18,340
	Seal-oil	do	31 0 0	45,260
	Seal-skins	Each	5 0	28,338
	Total			108,563
1885	Whalebone	Per ton	1,500 0 0	15,000
	Whale-oil	do	22 0 0	7,898
	Seal-oil	do	20 0 0	23,040
	Seal-skins			

The foregoing tables show the annual values of both whale and seal fishing. The catch for 1885 and 1886 was small, and is said not to have been remunerative. For 1886 the price of whale-oil was £23 per ton; of whalebone £2,250 per ton; of seal-oil £21 per ton, and of seal-skins 6*s.* each. The total values were £65,195, and for 1885 £60,667. The average values for the years 1880, 1881, 1882, and 1883 were £116,213, showing a decrease for 1885 of between 45 and 50 per cent., and the same decrease for 1886.

The catch of the whale fishery in 1886 was 15 black whales, 1,040 white whales, 19 bottle-nose, and 27 nar whales, besides a small number of walrus. The average price of whale-oil for six years ended with 1886 was £29 per ton; of whalebone £1,390 per ton; of seal-oil £26 per ton, and of seal-skins, 4*s.* 9*d.* each.

A. B. WOOD,
Consul.

UNITED STATES CONSULATE,
Dundee, December 17, 1886.

THE GREENOCK SUGAR TRADE IN 1886.

[From the Greenock Telegraph, Thursday, December 23, 1886.]

(*Transmitted by Consul Underwood, of Glasgow.*)

It is customary at the closing of the year to review the commercial past and anticipate the future. This is necessary, as our social life reposes on an industrial basis, and takes its coloring from the trade conditions of the time. For some years back the commercial life of the country has been ebbing rather than flowing; and Greenock, whose energies find an outlet in but one or two staple industries, has suffered much. If there is any improvement in the situation it lies in an increased feeling of hopefulness rather than in any yet realized betterness. Iron values, traffic returns, and other indications, however, would suggest that we have at last reached the exhaustive stages of the depression, and that industry is about to resume its wonted activity. This is strengthened by the consideration that the wants of the world are increasing rather than diminishing; that capital is plentiful and labor redundant, and the over-accumulated stocks of commodities which have brought about an unhinging of markets must now be considerably reduced.

THE SUGAR TRADE.

How does it fare with this staple and important industry; what has been its course during the year about to expire; and what are its prospects for the future? It must be admitted that the Greenock sugar trade in 1886 has not been satisfactory; that at present a considerable cloud hangs over it, and that its immediate prospects are not particularly hopeful. This is partially due to the general industrial depression, and also to other causes specially affecting itself which will fail to be noticed. It will be remembered that two years ago the sugar market was suffering from an abnormal depression, prices at that time being unprecedentedly low. This had been brought about by the enormous and altogether unexpected quantities of beet-root sugar which were thrown on the market. This disturbing factor had first manifested itself in the closing months of 1883, and continued to assert itself with accelerated strength until the December of 1884, when prices reached an astonishingly low point. At that time beet- was selling at 9*s.* 9*d.*; medium Javas, which good brown West India

THE GENERAL COURSE OF THE TRADE IN 1886.

As already remarked, the year just about to close has not been satisfactory to the Greenock sugar trade. Low prices, fluctuating markets, and a general feeling of uncertainty have made themselves disagreeably felt. A condition of paralysis attended the operations of the importer, and the refiner was puzzled as he had never been before as to the purchasing of his raw material. In former years it had been possible to somewhat approximate the course of the market, and this enabled the refiners to lay in considerable stock of the raw article. The unrest, however, manifested in the sugar values of the present year rendered this impossible, and, for the first time in the history of the trade, refiners, acting from prudential motives, have, as a rule, had to content themselves with hand-to-mouth supplies. A policy of this kind has its advantages, but it tends to the creation of difficulties in another direction. The value of the raw material and that of the refined article should bear a certain relation to each other; and the refiner can protect himself from a sudden downward tendency in the price of his finished product by carefully restricting his purchase of raw sugar. This, however, when carried to an extreme point, must tend to bring about decreased stocks of the raw material both here and in the United Kingdom, and this enables holders of sugar abroad to raise the price of the article. And, in point of fact, the stocks of raw sugar in the United Kingdom are at present lower by 50,000 tons than at the corresponding period of last year. The decrease is in reality much larger when we consider that each of the past successive four years showed an increase as compared with its successor as regards stocks of the raw material. The course of the sugar market is now to be traced in the varying prices of beet-root, which enters into the composition of the refined article to the extent of nearly two-thirds of the whole. And this beet-root is now produced in larger and still increasing quantities, with the result that it controls the market and dominates sugar values of whatever kind. On the whole, sugar prices have ranged lower during the course of 1886 than during any previous year. When the year opened beet-root (f. o. b.) was quoted at 15*s.* 6*d.*, but towards the end of January it had dropped to 14*s.* In April the market showed an upward tendency which resulted in an advance of 1*s.* 6*d.*, but this was checked by the reports of the coming heavy beet-root crops. This caused a steady relapse in prices, which continued until the autumn months of the year, when a slight improvement manifested itself. The average price of beet-root in January was 14*s.* 6*d.*, and that for December is 11*s.* The lowest monthly average price of beet-root during the year was 10*s.* 6*d.* (in June). It was, however, quoted during that month at a still lower figure, when it was to be had from 10*s.* 1½*d.* to 10*s.* 3*d.* This closely approaches the price of beet-root in December, 1884, when it had gone down to 9*s.* 9*d.* In August of this year Java sugar, No. 14, D. S., was sold at 12*s.* 9*d.*, being 1*s.* less than the very low price in December, 1884. There is at present but little prospect of increased sugar values, as according to the best authorities the estimated returns from this season's beet-root crop show an excess of about 500,000 tons over those of last year. The yield of this sugar will be the very largest on record.

SUGAR VALUES, STOCKS, AND IMPORTS IN 1886.

To enable our readers the more readily to understand the present condition and prospects of the sugar trade, not only generally, but with special reference to Greenock, we append a series of tables. These tables are compiled from reliable data, and show the comparative values of imports and exports for the last five years. Corresponding information is also given as to the course of the sugar trade in 1875, which enables a comparison to be made between the volume and values of the trade in 1886 and those of eleven years ago.

Table I, dealing with the imports of raw sugar into the United Kingdom, shows a large decrease as compared with those of the past four years. The average import of the years 1882, 1883, 1884, and 1885 was 976,250 tons, whereas the quantity for the present year is only 835,000 tons, thus showing a falling away of 141,250 tons. The deficiency of imports has caused a reduction in stocks in the United Kingdom, these now being represented by upwards of 50,000 tons less than at the corresponding periods in 1882, 1883, 1884, and 1885. This is altogether unusual, as at this period each of the successive years just mentioned (1884 excepted) showed an increase in stocks as compared with those of its immediate predecessor. The imports of 1886 as compared with those of 1885 show a falling off in beet-root to the extent of 60,000 tons; 35,000 tons less have been received from the British W[illegible]

Table II, dealing with the imports of raw sugar into Greenock, shows largely reduced imports. Of the decreased imports of raw sugar into the United Kingdom, represented by 135,000 tons, the largest proportion of reduction has taken place in Greenock. At present the stock in Greenock is 30,000 tons short of what it was at the close of 1885. A knowledge of this must tend to stiffen the demands of raw sugar sellers to Greenock refiners.

Table III deals with the total amount of raw sugar refined in Greenock. The outturn from the Greenock sugar refineries in 1886 is a little less than that of the preceding five years. As compared with 1885, it shows a reduction of 5,500 tons; with 1884, 2,500 tons; with 1883, 7,500 tons; and with 1882, 2,500 tons. It is thus seen that, as compared with the past five years, the Greenock refining trade has receded rather than progressed. The difference is slight, but it is altogether in the wrong direction. To say the very least, these figures show that in Greenock the trade is stationary. If we go back a year further to 1881, we find that the output of refined sugar in Greenock was represented by 20,000 tons more than in the present year. In fine, the Greenock refining trade has been practically stationary since 1875. Eleven years ago the outturn was 243,000 tons, while in 1886 it has been 237,500 tons. The present year thus shows a falling away of 5,500 tons as compared with 1875. The outturn of sugar from our refineries has been rather irregular and somewhat fitful during the year. A considerable spurt, however, manifested itself from July to October, and it is probable that during that time a larger quantity was refined in Greenock than in any similar period. Less beet-root has entered into the composition of Greenock refined sugar than in 1885. In that year the proportion was almost two-thirds, but during the year about to elapse it is nearer one-half.

Tables IV, V, VI, and VII deal with the prices of raw and refined sugars. They give the average monthly values of Java, beet-root, good brown West India, and medium refined sugars. On the whole, sugar prices have ranged lower in 1886 than during any previous year. It will be seen that Java sugar, No. 14, D. S., realized its highest price in December, 1875 (34*s.* 6*d.*), while its lowest point has been reached in August, 1886, when it was quoted 12*s.* 9*d.* The average price for January of this year was 16*s.* 6*d.*, and that for the present month is 13*s.* 9*d.* It will be observed that beet-root was at its highest price in December, 1876 (29*s.* 9*d.*), and at its lowest in December, 1884 (9*s.* 9*d.*), a little less than the average price for the December of the present year. In the opening month of the present year it stood at 15*s.* 6*d.* In January the average price of good brown British West India sugar was 14*s.*, and in the present December it stands at 11*s.* 3*d.* As regards medium refined sugar, the average monthly price in January of the present year was 17*s.*, and at present it stands at 14*s.* 9*d.*

Table VIII may, as regards information, be considered in present circumstances the most important of all. It records the imports of foreign refined sugars into the United Kingdom. A glance at this table shows that the foreign refiner is making year by year steady and substantial encroaches on the British sugar market. In 1875—eleven years ago—the total annual consumption of foreign refined sugar in the United Kingdom was represented by something less than 100,000 tons. In 1882 it stood at 128,000 tons, and each successive year since then has shown considerable advances. As compared with 1882 the year 1883 shows an excess of 30,000 tons; 1884, an excess of 72,000 tons; 1885, an excess of 122,000 tons; and the present year the still larger excess of 197,000, or about equal to 200,000 tons. That is to say, that since 1875, and within eleven years, the foreign refiner has increased his sale of sugars to British consumers by 225,000 tons. The imports of foreign refined sugar into the United Kingdom in 1886 is represented by the very large quantity of 325,000 tons. This is 87,500 tons in excess of what was turned out from the Greenock refineries in the present year. The import of foreign refined thus goes on increasing year by year with large strides. In 1875 the ratio of foreign refined to total home consumption was as one to eight, as against one to three in 1886. Although the quantity of foreign refined steadily increases, the quantities from the various sources are exceedingly variable. From Germany alone has the increase been steadily progressive; the United States, which in 1885 sent such an alarming quantity, has this year supplied us with 30,000 tons less. In the earlier months of the year the large imports came from Russia, and during the closing months of 1886 France has flooded the country with her refined sugars. No doubt a large quantity of sugar imported under the name of refined is [illegible] from —how much we have no means of knowing; but this fact is

trade in 1886 to the harbor trust are £33,000, which is equal to 54 per cent. of the entire harbor trust revenue. This represents dues on sugar and on sugar-laden vessels discharged at Greenock, rent on harbor trust sheds and warehouses, dues on sugar shipped at Greenock, and on sugar-carrying vessels enterring the graving docks for repairs. The sugar contributions to the water trust in the year 1885–'86 are represented by £7,824 16*s.* 7*d.*, an amount equal to 33.7 per cent. of the entire water trust revenue. To the poor and education assessments the sugar trade contributes £1,537 10*s.* 8*d.*, equal to 7.6 per cent. of the whole. The police and other assessments draw from the sugar trade the sum of £1,785 13*s.*, equal to 5.4 per cent. of that entire revenue. Finally, in summarizing the results, we find that of the entire ordinary local revenues, amounting to £136,906 14*s.* 6*d.*, the sugar trade furnishes £44,148 3*d.*, a sum equal to 32.5 per cent. of the whole. It will be observed from the table dealing with this matter that the sugar contribution to the harbor trust revenues is this year less by about £3,000 than it was in 1885. This is to be accounted for by the general depression in the sugar trade, and notably to the falling off in direct sea-borne imports at Greenock. This was apparent in the unusual slackness that prevailed around the harbors during the present year. It is estimated that the raw sugar discharged at the quays, as compared with the figures in 1885, is less by about 45,000 tons. Large quantities of beet-root find their way into Greenock per rail, but it is difficult to get at the figures. This sugar, unfortunately for the harbor trust revenue, escapes the dues levied on direct sea-borne cargoes.

THE CONDITION AND PROSPECTS OF GREENOCK SUGAR REFINING.

Until within the last few years, so deeply marked by industrial and commercial depression, Greenock was favored with an extraordinary share of material development and prosperity. And in this the sugar trade was a prominent sharer. The trade until recently was fairly remunerative to those engaged, but it has failed to manifest that elasticity and march forward so characteristic of ship-building and other industrial departments. The test question as to the condition of our sugar industry is not how much sugar is refined in Greenock, but what proportion does our annual production bear to the total yearly consumption in the United Kingdom and the exports therefrom. Eleven years ago Greenock supplied 28 per cent. of the sugar then consumed, whereas in 1886 the portion is slightly under 25 per cent. It is no comfort to tell us we send out as much sugar as we did in 1875; our turn-out should have grown with the growth of the population, the increased individual consumption, and the consequent enlarged demand. The population of the United Kingdom has increased enormously since 1875, and the consumption per head is greater than in any other country in the world. It stands somewhere a little over 70 pounds. But notwithstanding these reasons for expecting a large development in our sugar-refining industry, it has for the past eleven years remained practically stationary. The reasons for this arrestment are worth inquiring into. They are not to be found in disadvantages and inconveniences attending our situation as a great refining center. Greenock as a seaport is admirably situated; her docks and harbors are abreast of the times; her quayage dues bear in point of moderation favorable comparison with those of other sugar ports; and water, which is an essential factor in sugar refining, is excellent, cheap, and abundant. The causes responsible for arresting the progress of the Greenock sugar industry must either be found in the incapacity or unwillingness of our refiners to adjust themselves to the wants of a time that is nothing if not transitionary, or in the operation of extraneous influences over which they have no control and with which they are powerless to battle.

THE VEXED QUESTION OF FOREIGN SUGAR BOUNTIES.

For many years now this question has assumed a prominence as a disturbing and repressing factor in the development of our sugar trade, but at present it appears to be more accentuated than at any previous time. Our refiners assure us that but for the subsidies of French Governments to their refiners, they could not only hold their own in the trade, but command, to the exclusion of the foreigner, the sugar consumption in the United Kingdom. There is no doubt that our sugar industry is suffering from foreign competition, and that that competition is encouraged by the pernicious system of bounties. But to what extent this is the case it is impossible to determine. The fact is that no direct bounty is given to the foreign [illegible] finer; it is given in the shape of a drawback [illegible] last year, the mother [illegible]

it is estimated that the yield will be 6 per cent, but it is stated that the average extraction of saccharine runs from 10 to 12 per cent. The actual percentage of the yield must depend on many causes. It will be influenced by the weather and general climatic influences, the richness or leanness of the roots, and in a very special degree by the extracting appliances of the fabriques. The commercial appliances are, we understand, excellent, and it is easy to see how the fabricants will be stimulated to perfect their extracting methods, when so much depends on them. It is admitted by the French Government that by the circuitous method of assessment a large proportion of the sugar escapes the duty. The chancellor of their exchequer stated recently that at least 4 per cent. in excess of the Government estimate was extracted from the roots. In exporting sugar it is assumed by the French refiner that the whole has paid the Government duty, and on this false assumption the drawback is calculated and paid in full. The net result is that the French refiner receives from his own exchequer more money than he has paid into it in the form of duty, and to whatever extent this may be the case he is subsidized by his Government, and strengthened to compete favorably with our refiners. The French manipulation of their sugar duties, though resulting in a considerable bounty, yet in principle and method may be taken as a fair representation of the whole continental system. By refining in bond the bounty system would disappear.

WHO ARE OUR PRINCIPAL FOREIGN COMPETITORS.

The foreign refined sugars entering our home market come from France, Russia, Germany, Austria, Belgium, Holland, and the United States. Our housewives have in addition to our home-refined supplies all these sources to draw from. British grocers now sell in large and increasing quantities French and Russian crystals, German granulated, Austrian crushed, and Dutch lumps. The United States bounty has been almost entirely cut off, and to this cause is attributed the almost entire cessation of refined sugar from this quarter during the last month or two. On the other hand, the French bounty has been greatly increased, and this is associated with the large and daily increasing imports from this source. To whatever cause it is to be correctly attributed, it must be a serious matter for our refiners to find that of the Brittish consumption of sugar no less a quantity than 325,000 tons (less the weight bought and used by our refiners themselves) this year were supplied from foreign sources, and the proportion is rapidly growing from year to year. The French bounty is estimated at from 5 shillings to 10 shillings, and the German at 2 shillings per cwt. This, of course, is merely approximate, it being impossible to ascertain the exact amount. It has been estimated that during the current fiscal year in France their refiners will receive on their total exports of refined sugar a sum of two and a half millions, but it is impossible to calculate the amount until it is seen to what extent their sugar finds its way into this and other countries. There can be no doubt that the British consumer receives a considerable benefit from the cheapness of the article brought about by the keen foreign competition, but to what extent this is the case, it is difficult to say. Let us suppose that the French refiners pocket the sum of two and a half millions on their exports to the United Kingdom and other countries. How much of this do they require to part with in order to successfully compete with our home refiners, and how much are they able to retain for themselves, or are they even obliged to part with any of it at all? The whole question is veiled with the impenetrable, some asserting that only a veritable fraction of the bounty requires to be spent, while others maintain that the whole sum is retained by the foreign refiners, and that even if the bounty were withdrawn to-morrow they would continue to send their sugar into our markets as they do at present. The general opinion is, however, that the British consumer benefits to some extent by the bounty, and that if it were withdrawn the foreign imports would sensibly decrease if not cease. It must not, however, be forgotten that the raw beet-root is bounty-fed as well as the refined, and that whatever cheapening of the raw results from this is shared by our home refiners. When it is remembered that beet-root to the extent of almost two-thirds enters into the composition of our home refined sugar, it is easily seen that there is a large compensation to our refiners in this bounty business. In addition, it is admitted that the cheapening [illegible] has been the means of very largely developing the British

righteous paths. And in requesting foreign nations to discard subsidies and hot-house methods of industry we do so with clean hands. Great Britain has opened her ports to the world; she receives freely whatever the industry of others has to offer, and she stands forth as the great pioneer of free trade among the nations of the earth. Assuming that a large portion of the sums represented by foreign bounties is spent in cheapening the price of sugar to the British consumer, there are those who think that we should accept the situation without demur, and congratulate ourselves on the liberality of foreign Governments. From a pure free-trade point of view this is perhaps strictly logical, but it is accompanied with a doubtful development. It is unfair that the peoples of the Continent should be needlessly mulcted in order to enrich their own sugar refiners and to effect a cheapening of sugar to British consumers. And it is also unfair to our own refiners, whose capital is at stake, and to the vast labor interests represented in our sugar-refining centers. These sugar centers are unfortunately few, and this it is that has prevented the question of foreign bounties from assuming the importance of a national grievance. The world is governed mainly by motives of self-interest, and our only hope of being able to suppress the bounties lies in our power of convincing the foreigner that he continues to grant them to his own detriment. Our American cousins have already caught a glimmering of this truth, and this has found practical expression in the cutting down of their sugar bounties, and in their pledge that what has been accomplished in part will shortly be fulfilled in whole. What in this respect has been made patent to the American should not be impossible to the Continental intellect, and whatever our own Government can do towards the solution of this problem should be wisely, resolutely, and immediately done.

THE WEAKNESS OF A SEVERELY LOGICAL FREE TRADE.

For good or evil the competitive system is now the law of our industrial and commercial life, and it becomes more feverish and accentuated with every passing year. The stern law of the survival of the fittest is now operative in full and unrestricted force, and if with benefit to the many, with cruel consequences to the few. We have entered on an industrial era that is pregnant with harassment, uncertainty, and disturbance. No producer or manufacturer now knows exactly where he stands. The inventive brain and the cunning hand are everywhere and always aiming at improvements, with the result that the splendidly and skillfully organized industry of to-day may be withered and paralyzed by the ingenious discovery of the morrow. This we call progress, but it means a transitional state which gives birth to much dislocation and suffering. If superior skill and local natural advantages enable a particular country to outstrip all its rivals in the production of a commodity, both as regards cheapness and excellence, it is doubtless a world benefit. But it also means silent factories and displaced operatives in other industrial centers, with the consequent suffering that is inseparable from idle labor. This, when springing directly from the natural operation of free trade, we must submit to, and adjust ourselves to the new circumstances as best we may. But when an industry whose prosperity is vital to the existence of a community is threatened by the pernicious and artificial stimulus of foreign subsidies, the matter is far otherwise, and demands the most serious consideration. Take Greenock, for example, and assume that the present seemingly decaying condition of the sugar industry is due to the operation of foreign bounties. Let us even assume the worst by supposing that the Greenock sugar trade is doomed to perish. This to a large extent would spell ruin to the town. It would afford little comfort to be reminded that the people of Greenock, in common with other citizens throughout the country, had the advantage of cheap sugar. The cheapness of a commodity is good, but in this case it would be brought about by a great deal of suffering. If the division of labor is a strength, it is also a weakness. In these days the individual is trained to a particular trade, and if employment fails at that he is doomed to complete or semi starvation. If displaced capital and displaced labor could find immediate employment in fresh industries it would be well. But this is not the case; and an extinguished industry, whether brought about by the operation of natural causes or by the hot-house method of foreign subsidies, is to many attended with calamitous results. This is the crucial weakness in the development of free trade, but it is easier to point out the evil than to devise a remedy.

WHO HAS ENCOURAGED THE FOREIGNER TO CONTINUE THE BOU[illegible]

question, were said to have been maintained at the expense of the refiners. In Greenock, Liverpool, London, and elsewhere the McLeans, the Peters, and the Kellys raised a clamor that a crisis had arisen in the British sugar-refining trade, and that it was about to be extinguished through the operation of foreign bounties. What was this but to encourage the foreign refiners in the belief that they were about to possess a monopoly of the British sugar market, and to strengthen their respective Governments in the idea that, though in principle bounties were penicious, it was worth their while to continue them a little longer, when such a prize was in store? And this agitation was carried on at a time when bounties were admittedly much less than they are to-day. The continental ear is ever open to what is going on in this country, and nothing better could have served their purpose. Our home refiners have not acted wisely in crying fire when there was no fire; their policy was ill-adapted to the end they had in view; and the unfortunate results are easily read in the recent increasing of the French bounties. It is a ruinous policy for the representatives of a trade to go about proclaiming that it is on the verge of ruin. Such a course not only tends to impair their credit with those who deal with them, but it places them at a disadvantage in the withdrawal of trade facilities, such as the lessening of raw stocks at their own door. The result has been prejudicial both to the interests of the sugar trade and the town generally. Greenock can compete favorably with London and other sugar refining centers, and if left alone by the sinister and Cassandra prophets would to-day be in a healthier condition.

WHAT ABOUT A COUNTERVAILING DUTY?

This much-vaunted and much-bepraised remedy has not of late been quite so audible. It is, however, coming to the front once more. The increasing keenness of the foreign competition and the recent addition to the French sugar subsidies have rejuvenated our countervailing friend and again brought him out into the open. The would-be countervailers, for the most part, proclaim themselves free-traders, and contend that their ideas, if embodied in legislation, would do nothing to promote protection, but would simply restore the natural equilibrium which the foreign bounties have destroyed. Even assuming the soundness of their contentions, there are serious initial difficulties which cannot be surmounted. It is admitted that in amount the bounties vary in each respective country, and that there is no possibility of ascertaining exactly what they are. Before encountering one's enemy it is absolutely necessary to identify him, and in this case that is precisely what cannot be done. But even admitting the possibility of getting over this difficulty, what next? If foreign refined sugar were assessed so as to exactly balance the respective bounties, and if it is correct to suppose that the bounties are directly and solely responsible for the drooping condition of our home sugar industry, then, in that case, the foreigner would be shut out, and no duty would be paid into our national exchequer. This would enable the home refiner to lay an additional burden on the British consumer, as, freed not only from the adverse influence of foreign bounties, but from competition, he could raise the price of his commodity. This would correctly be described as class legislation, and the spirit of the age has set its face against it. The reply would doubtless be that the sugar industry is again thriving; that silent sugar-houses are things of the past; that labor is busily employed; that money circulates freely, and that the community reaps a great and solid advantage. As Greenock citizens, this is a consummation to be hailed, and one with which few would be found to quarrel. If the British people as a whole are willing to pay a little more for their sugar in order to conserve the interests of the few sugar-refining communities, Greenock, we are certain, would welcome the boon.

A FINE OPPORTUNITY FOR THE TORIES AND FAIR TRADERS.

Their pet scheme of a countervailing duty is surely now within their grasp. A strong conservative Government is now in office, and in the light of the recent pledges given by the "Liberal Unionists," it may be averred that not only are they in office, [illegible] power. It should surely be now or never with a countervailing duty. [illegible] present occupants of Downing street have [illegible] and harassed in-

the sincerity of their former professions, and if the Tories and fair traders should succeed in converting the sugar trade into a thriving industry they will earn the gratitude of the community, and Greenock will be proud to embalm their services in her memory.

ARE BOUNTIES ALONE RESPONSIBLE FOR THE PRESENT UNSATISFACTORY CONDITION OF THE GREENOCK SUGAR TRADE?

In endeavoring to account for the languid condition of our sugar industry, it may be assumed that to some extent foreign bounties are responsible. But they are merely one of the contributory factors, and there are others which it may be well to drag into the light. It is evident that something like a permanent fall has taken place in the cost of sugar production, and if the trade were carried on under legitimate conditions the cheapness of the raw material would in easily understood ways be most advantageous to the refiner. He could carry on his business with less capital, and the low price of his commodity would enlarge the area of its consumption. But the trade is subjected to harassing and worrying conditions, which are perpetually destroying that natural relation of values that should subsist between the raw material and the finished product. What is known in commercial phraseology as "sugar rings" are formed by speculative capitalists, who control and manipulate the markets, and create artificial values. The legitimate dealer or sugar-refiner is at the mercy of huge gambling syndicates who subordinate everything to the attainment of their own personal ends. At present large stocks of beet-root are concentrated in Hamburg and other continental centers, and these are held by pure gamesters, who for their own nefarious purposes derange daily, and sometimes hourly, the entire sugar-exchange machinery of several countries. There also obtains a system of "forward contracts" which operates more injuriously than the bounties. For example, large purchases of the beet-root crop for December, 1887, have already been entered into. This is simply a game of hazard in which some must gain and others lose, and it tends to keep the trade in a perpetual state of paralysis. The crops referred to as already bought are not yet sown, and owing to the uncertainty of the weather, which may bless or blight, the prices given afford no guide to the value of next year's sugar. Beet-root sugar, unlike that of cane, is now sold without sample, and according to analysis, and it is transferred from hand to hand by paper warrants like those conveying iron and cotton. This favors the speculative game, and tends to produce uncertainty and confusion all round. The extent to which speculation now operates as a disturber and unhinger of industry would seem to call for the restraining influence of the legislative hand. In the mean time, however, refiners and others must cope with these difficulties as best they can, as they are powerless to extinguish them. There is one reform which the sugar trade has accomplished, and which is to take effect early next year. Hitherto it has been the trade custom to buy and sell beet-root sugar on the basis of 88 per cent. analysis, with an abatement or an advance of threepence per degree according as the sugar fell or rose above the 88 per cent. standard. This was not regarded as an equitable arrangement for the buyer and it is to be superseded by a better system. The standard consists of a hundred degrees, and whatever the analysis may be the sugar will be charged on the proportionate value that it bears to the whole. The result will be that refiners will know exactly where they stand, as they will pay precisely on the analytic yield.

A NEW DANGER.

In these days, all organized industries are liable to suffer from the progress of the arts and sciences. For the present the sugar trade has little to fear from the coal-tar and sorghum scares, but there is in advancing operation a tendency which may ultimately menace if not extinguish our home refining industry. This danger is to be read in the enormous and daily-growing quantities of sugar which enter the United Kingdom in a completely refined condition. Continental beet-root is refined on the spot where it is produced, and is thus fitted to enter into direct consumption, and this economical system of completing the process of sugar production on the spot is not confined to the Continent. It is in operation in Demerara, Surinam, and the Brazils. The sugar-growers in those countries are supplying themselves with plant and machinery which enable them to complete the process, and to send out their sugars ready for the table. The idea is not only natural [illegible]

ARE THE GREENOCK SUGAR REFINERS ABREAST OF THE TIMES?

The prosperity of the sugar trade is vital to Greenock and the question is put in the interest of the community. It is admitted that to some extent the Greenock refiners are suffering from causes over which they have no control. This ought to induce them in every way to strengthen their position, so as to enable them to encounter the difficulties that beset them. It is not doubted that their processes are modern and economical. The Greenock refiners have reduced waste to a minimum, and their machinery is excellently adapted for its purpose. This is so far well, but it is not everything. Are they studying the tastes of the consumers, and as regards quality and packages adapting themselves to the wants and markets of the time? We are informed that one or two sugar refineries in Greenock are abreast of the times, but that the trade as a whole is somewhat behind. A townsman who has been bred to the business, and who is thoroughly conversant with all its details, assures us that Greenock is in some danger of allowing itself to fall out of the ranks. We summarize the information he has placed at our disposal. He asserts that for years back the Greenock refiners have done little or nothing to improve the character of their sugars, with the result that they are losing their markets. At one time they found the best markets for their fine sugars in Scotland and the north of Ireland. At present the outlet for these sugars in the north of Ireland and the east coast of Scotland is all but closed to Greenock refiners. In these markets their sugars have been displaced by London and Liverpool crystals, and this not so much on account of cheapness as because the English crystals are better adapted to the taste of the consumers. And as regards the Greenock trade with the south of Ireland, it is now falling into the hands of London, Liverpool, and even Plymouth refiners. It is further stated that all the hard or loaf sugar required in Scotland has now to be brought from England or abroad, as Greenock refiners do not manufacture this kind of article. Many years ago a considerable quantity of the loaf sugar used in the country was made in Port-Glasgow and Greenock, from where it was shipped to various places in England and Scotland. Granulated sugar, for which a taste has been created in this country on account of its suitability for domestic purposes, cannot always be got on the Clyde, and this want is supplied by the continental refiner, who disposes of large quantities of this sugar in this country. A Greenock refinery lately commenced to manufacture granulated sugar, but from whatever reason it has been discontinued. At one time sirups were largely made in Greenock and found a ready market all over Scotland, England, and even on the continent. The Greenock trade in sirups is now to a large extent extinct, it having been acquired by London and Liverpool houses. Another neglected field is that of exports. While Liverpool refiners are cultivating this trade and finding it profitable, making sugars to suit the taste of foreign buyers, Greenock refiners show a disinclination to make any change in their makes. The little export trade that is left the Greenock refiners are in danger of losing through not adjusting themselves to the wants of the foreign buyers in the matter of packages, marking, &c. The consular reports for some months back show that one of the principal reasons given for the neglect of British goods is the want of adaptability on the part of British manufacturers, and our informant states that this is specially true of Greenock refiners.

THE OLD GREENOCK REFINERS AND THE NEW.

Assuming the indictment to be true that the refiners of to-day are not marching with the times, it is not only a serious matter for themselves, but for an industrial community such as that of Greenock. A trade which in its present languid condition contributes 54 per cent. of the entire harbor trust revenue and about 33 per cent. of the local revenues ought at all hazards to be preserved. It is right that the refiners should make use of every legitimate endeavor to get rid of foreign bounties, but it is evident that their energies should also be expended in other quarters. The trade conditions of the time do not admit of antediluvian and conservative methods. It is only those who are able to catch the public taste and place the best article in the market at a minimum of cost who will succeed. It is more tempting to make a [illegible] through the medium of speculation than to build up wealth through [illegible]'s legitimate business. The specula-

and be slow to adjust themselves to the smaller profits now obtainable. But there is no alternative. The Greenock refiners must adapt themselves to the necessities of the altered situation. The economic laws are no respecters of persons, and they must accommodate themselves to the exigencies of the age like the rest of the commercial community. For the sake of Greenock and themselves, it is to be hoped that the Greenock refiners will buckle themselves anew to their enterprise and make their trade once again, as it has been before, a busy and thriving industry. In the meantime we wish them the compliments of the approaching Christmas season, and trust that at the close of 1887 it will be our pleasant duty to chronicle a more satisfactory condition of the Greenock sugar trade than it has been possible to do for the closing year.

TABLE I.—*Total imports of raw sugar into the United Kingdom*, 1875, *and* 1882 *to* 1886.

Year.	Amount.	Year.	Amount.
	Tons.		*Tons.*
1875	825,000	1884	965,000
1882	965,000	1885	970,000
1883	1,005,000	1886	835,000

TABLE II.—*Total imports of raw sugar into Greenock*, 1875, *and* 1882 *to* 1886.

Year.	Amount.	Year.	Amount.
	Tons.		*Tons.*
1875	247,000	1884	260,000
1882	250,000	1885	260,000
1883	260,000	1886	212,000

TABLE III.—*Total raw sugar refined in Greenock*, 1875, *and* 1882 *to* 1886.

	1875.	1882.	1883.	1884.	1885.	1886.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Beet-root	33,000	87,000	113,000	142,000	160,000	122,500
Java	30,000	67,000	92,000	73,000	57,000	93,500
British West India	47,000	33,000	13,000	15,000	11,000	9,500
Other sorts	133,000	53,000	27,000	10,000	15,000	12,000
Total	243,000	240,000	245,000	240,000	243,000	237,500

TABLE IV.—*Average price of Java sugar, No.* 14 *D. S.*, 1875, *and* 1882 *to* 1886.

[Highest price 34*s.* 6*d.*, November, 1876; lowest price 12*s.* 9*d.*, August, 1886.]

Month.	1875.	1882.	1883.	1884.	1885.	1886.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
January	25 6	26 0	23 9	21 6	14 0	16 0
February	25 6	25 0	23 6	21 0	14 9	15 9
March	25 0	25 3	24 9	19 6	15 0	14 3
April	26 0	26 0	25 0	19 0	15 6	14 6
May	26 0	25 0	24 9			

TABLE V.—*Price of beet-root sugar, £3 per cent., 1875, and 1882 to 1886.*

[Highest price 34*s.* 6*d.*, November, 1876; lowest price 10*s.* 3*d.* December, 1884.]

Month.	1875.	1882.	1883.	1884.	1885.	1886.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
January	22 3	22 0	19 9	18 0	10 6	14 6
February	22 0	21 9	19 3	17 6	11 9	13 9
March	22 6	22 0	21 0	16 9	11 9	12 3
April	23 6	23 3	21 3	15 6	13 0	13 0
May	23 3	23 0	21 3	15 0	16 0	13 0
June	23 6	22 9	21 3	14 0	16 3	10 6
July	22 0	22 6	20 9	13 3	15 0	11 0
August	21 0	22 6	20 9	12 3	15 3	11 0
September	24 3	22 0	20 6	11 0	15 6	11 0
October	20 0	21 3	19 6	11 6	14 9	11 0
November	19 0	20 0	18 9	10 9	15 0	10 6
December	19 0	19 9	18 0	10 3	15 6	11 0

TABLE VI.—*Average price of good brown British West India sugar, 1875, and 1882 to 1886.*

Month.	1875.	1882.	1883.	1884.	1885.	1886.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
January	21 6	21 0	19 6	17 6	11 0	14 6
February	21 0	21 0	19 0	17 3	11 3	13 6
March	20 0	21 3	21 0	15 0	11 9	12 6
April	21 3	22 0	21 6	14 0	12 6	13 6
May	21 0	22 0	21 0	15 0	16 0	12 3
June	20 3	21 6	21 0	13 0	16 0	11 0
July	19 6	21 6	20 6	12 6	14 6	11 6
August	20 0	21 6	20 0	11 0	15 0	11 0
September	19 6	21 6	20 0	10 6	15 0	11 6
October	19 0	21 0	19 6	11 6	14 6	11 6
November	19 0	20 6	19 0	11 0	14 9	11 0
December	19 0	20 6	18 6	11 0	15 6	11 3

TABLE VII.—*Price of medium refined sugar, 1875, and 1882 to 1886.*

Month.	1875.	1882.	1883.	1884.	1885.	1886.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
January	25 6	25 0	25 0	22 0	15 0	17 0
February	25 6	25 0	24 9	22 0	15 3	15 9
March	25 3	25 0	26 3	19 6	15 3	15 6
April	26 0	25 6	26 0	19 0	16 0	16 9
May	25 3	25 9	25 0	19 0	19 6	15 0
June	25 3	25 6	25 0	18 0	18 6	15 3
July	25 3	26 0	25 6	18 0	17 0	15 0
August	25 3	25 6	25 0	18 0	18 0	14 0
September	24 9	25 6	24 0	18 0	18 0	14 3
October	24 9	25 0	23 6	16 0	17 9	14 3
November	24 9	24 6	23 6	17 0	17 9	14 3
December	24 9	24 0	23 0	15 0	18 9	14 9

TABLE VIII.—*Imports of foreign refined sugar into United Kingdom, 1875, and 1882 to 1886.*

	Amount.

TABLE IX.—*Total annual direct contributions of the sugar trade to local revenues.*

Years.	Harbor trust.*	Water trust.	Poor and education assessments.	Police and other assessments.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1874–'75	36,293 14 3	6,874 10 0	1,449 7 8	1,524 8 4
1883–'84	31,291 0 4	8,672 12 1	1,366 6 10	1,550 8 8
1884–'85	35,926 14 0	8,168 3 1	1,368 7 11	1,537 8 5
1885–'86	†33,000 0 0	‡7,824 16 7	§1,537 10 8	‖1,785 13 0

SUMMARY, 1885–'86.

	£	s.	d.
Harbor trust	33,000	0	0
Water trust	7,824	16	7
Poor and education rates	1,537	10	8
Police and other assessments	1,785	13	0
Total	¶44,148	0	3

* This represents dues on sugar and on sugar-laden vessels discharged at Greenock; rent on horbor trust sheds and warehouses; dues on sugar shipped at Greenock and on sugar-carrying vessels entering the graving docks, &c.

† Equal to 54 per cent. of total harbor trust revenue (£60,313 10*s.* 6*d.*)

‡ Equal to 33.7 per cent. of total water trust revenue (£23,171 18*s.* 6*d.*)

§ Equal to 7.6 per cent. of total poor and education assessments (£20,189 12*s.* 2*d.*)

‖ Equal to 5.4 per cent. of total police revenue (£33,231 13*s.* 4*d.*)

¶ Equal to 32.5 per cent. of total revenues ordinary— (£136, 906 14*s* 6*d*,)

THE SUGAR TRADE OF 1886.

Glasgow Herald, Wednesday, December 29, 1886. Written by James Dunn, esq., a leading authority.]

Transmitted by Consul Underwood, of Glasgow.

The improvement which characterized the course of prices in 1885 has been altogether reversed throughout the currency of the present year, and it has again become necessary to deal with figures which have almost steadily tended towards what must be regarded as the panic values which marked the close of 1884. The advance which had been established at the end of the former year gave rise to a very general belief that the crucial period had been passed, and that the value of the article was still destined to make further progress in the same direction. This view readily received a substantive shape in the preparations which about the beginning of the present year were universally made for increasing the cultivation, with the result that as the season advanced the estimate of future supplies surpassed all former calculations, and the consequence has been a total reversal of those anticipations which at an earlier period had been formed upon the subject. This state of things has also largely resulted from incentives to over-production in further developments of the bounty system in certain continental countries. At the opening of the year the price of 88 per cent. beet-root was 15*s.* 9*d.* f. o. b., while Java cargoes, off coast, stood at about 18*s.* per cwt. Since then and down to the date of this report the total fall in the value of both descriptions has been about 4*s.* 6*d.* per cwt., to-day's selling prices being 11*s.* and 13*s.* 6*d.* for beet-root and Javas respectively. The prices at which the market opened in the early days of January were the highest touched at any time throughout the year, while beet-root in November fell to 10*s.* 1½*d.*, and Java in August to 12*s.* 9*d.*, these prices being only 4½*d.* higher in the case of beet-root, and actually 9*d.* per cwt. lower as regards Java sugar than the minimum selling points of 1884. A reaction, however, which set in towards the beginning of November, added about 1*s.* 6*d.* per cwt. to values, but since then, as has been seen, that addition has been partially swept away. In order to provide a proper

Date.	Eighty-eight per cent. beet-root, f. o. b. Hamburg prompt.		No. 14 Javas, off coast, floating conditions, landing weights.		Date.	Eighty-eight per cent. beet-root, f. o. b. Hamburg prompt.		No. 14 Javas, off coast, floating conditions, landing weights.	
	Highest.	Lowest.	Highest.	Lowest.		Highest.	Lowest.	Highest.	Lowest.
1886.	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	1886.	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
Jan. 9	15 9	15 6	17 9	17 4½	July 10	11 4½	11 3	13 9	13 6
Jan. 16	15 4½	14 9	17 3	16 9	July 17	11 7½	11 4½	13 10½	13 7
Jan. 23	15 0	14 7½	16 6	16 3	July 24	11 7½	11 3	13 9	13 6
Jan. 30	14 7½	14 0	16 6	15 9	July 31	11 6	11 0	13 9	13 6
Feb. 6	14 3	13 9	16 0	15 9	Aug. 7	11 3	10 10½	13 6	13 3
Feb. 13	14 3	13 7½	16 0	15 7½	Aug. 14	11 3	10 10½	13 6	13 3
Feb. 20	13 6	12 9	15 0	14 9	Aug. 21	11 3	11 0	13 6	12 9
Feb. 27	13 4½	12 10½	15 6	15 0	Aug. 23	11 3	10 10½	13 6	12 9
Mar. 6	13 3	13 0	15 6	15 0	Sept. 4	11 3	10 9	13 6	13 3
Mar. 13	13 1½	12 10½	15 6	15 0	Sept. 11	11 3	11 0	13 6	13 3
Mar. 20	12 10½	12 3	15 4½	14 3	Sept. 18	12 0	11 3	14 0	13 6
Mar. 27	12 7½	12 4½	14 9	14 6	Sept. 25	11 10½	11 1½	14 0	13 9
Apr. 3	12 10½	12 3	15 0	14 6	Oct. 2	11 9	10 9	13 6	13 3
Apr. 10	12 9	12 3	15 0	14 6	Oct. 9	11 1½	10 7½	13 6	13 3
Apr. 17	13 1½	12 9	16 0	15 0	Oct. 16	11 0	10 9	13 6	13 3
Apr. 24	13 6	13 0	15 9	15 6	Oct. 23	10 10½	10 3	13 6	13 3
May 1	13 9	13 0	16 0	15 6	Oct. 30	10 9	10 1½	13 6	13 3
May 8	13 3	12 9	15 9	15 6	Nov. 6	10 4½	10 3	13 6	13 3
May 15	13 0	12 6	15 3	14 6	Nov. 13	10 7½	10 6	13 6	13 3
May 22	12 7½	12 0	14 6	14 3	Nov. 20	10 10½	10 6	13 6	13 3
May 29	12 4½	11 7½	14 3	14 0	Nov. 27	10 10½	10 9	13 6	13 3
June 5	11 9	11 0	13 9	13 6	Dec. 4	11 0	10 10½	13 6	13 3
June 12	11 1½	10 4½	13 6	13 3	Dec. 11	11 6	11 0	13 9	13 6
June 19	11 1½	10 7½	13 9	13 6	Dec. 18	11 6	11 0	13 9	13 6
June 26	11 1½	10 9	13 9	13 6	Dec. 25	11 1½	11 0	13 9	13 6
July 3	11 3	11 0	13 9	13 6					

While for the purpose of comparing the fluctuations this year with those experienced within the limits of each of the ten immediately preceding years the following table is submitted:

Years.	Price of 88 per cent. beet-root per cwt., f. o. b. Hamburg.		Price of Java sugars, No. 14/15 floating terms.		Years.	Price of 88 per cent. beet-root per cwt., f. o. b. Hamburg.		Price of Java sugars, No. 14/15 floating terms.	
	Highest.	Lowest.	Highest.	Lowest.		Highest.	Lowest.	Highest.	Lowest.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*		*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1876	29 9	18 6	35 0	22 9	1882	22 9	19 9	26 4½	24 3
1877	26 0	19 6	33 0	24 3	1883	21 7½	18 0	25 6	21 6
1878	22 9	19 6	26 9	23 6	1884	18 4½	9 9	21 10½	13 7½
1879	29 0	19 9	30 3	22 9	1885	16 9	10 0	19 0	13 10½
1880	25 6	19 4½	29 6	24 9	1886	15 9	10 1½	17 4½	12 9
1881	24 0	20 9	28 3	25 1½					

In connection with the more admittedly speculative dealings in which, as in stock exchange transactions, operations for differences or adventures of the nature of "bulling" and "bearing" form a large part of the business, the Paris Bourse quotations, as furnishing the best evidence of what has been possible in these respects, and as indicating the force of opinion on all questions affecting the article, require to be specially referred to. At the beginning of January that market opened with quotations for No. 3 crystals for delivery in March–June, and May–August at 49 francs per [illegible] (equal to about 19*s.* 11*d.* per cwt.) for the former and 49.25 francs per 100 [illegible] per cwt.) for the latter period, and when these [illegible] the values in each case had [illegible] per 100

or equal to 13*s.* 11*d.* per cwt.; while at this date the price for January–April is 33.87½ francs, or equal to 13*s.* 9*d.* per cwt. The current quotation is for March–June of the incoming year, and the result so far shows a difference in favor of buyers or "bulls" which is only fractional. The following have been the highest and lowest quotations for the various periods for which operations occurred throughout the year:

Prices of Paris No. 3 *crystals per cwt. during* 1885.

Delivery.	Highest.		Lowest.	
1886.	*s.*	*d.*	*s.*	*d.*
March–June	19	11	15	11
May–August	20	0	16	1
October–January	17	9	12	7
1887.				
January–April	14	11	12	11½
March–June	14	5½	13	3

The imports into the United Kingdom this year, according to the Board of Trade returns, show that whilst the weight of raw sugar landed has again decreased, that of refined has moved in an opposite direction; and as this is just the position of affairs which is most to be deplored, the figures pertaining to the subject, in their application to sugar refining as a British industry, are anything but satisfactory. For the eleven months ending November 30 last the total quantity received was 1,037,380 tons, and adding 100,000 tons for December as the average monthly importation, in order to account for the full year's receipts, it may be set down at 1,137,380 tons. Of this quantity 811,582 tons may be stated to be raw sugar and 325,798 tons as foreign refined, which, set against 969,187 tons of the former and 266,902 tons of the latter imported in 1885, 982,618 tons and 213,334 tons in 1884, and 1,017,853 tons and 164,273 tons in 1883, shows that whilst the importations of raw sugar into this country have this year been 157,605 tons under those of 1885, 171,036 tons under 1884, and 206,271 tons under 1883, the receipts of refined have been increased as against those of 1885, 1884, and 1883 by 58,896 tons, 112,464 tons, and 161,525 tons respectively. Of the importations of raw sugar up to November 30, 303,380 tons were beet-root, and 438,202 tons cane produce. Regarding the deliveries of raw sugar for refining purposes, the quantity employed this year is 32,000 tons short of what was so used in 1885 and 62,000 tons under that of 1884. The following are the particulars of both imports and deliveries of raw sugar for the past ten years, together with the stocks at the end of each year:

Years.	Total imports of raw sugar into United Kingdom.	Total deliveries of raw sugar in four ports.	Total stocks of raw sugar in four ports.	Years.	Total imports of raw sugar into United Kingdom.	Total deliveries of raw sugar in four ports.	Total stocks of raw sugar in four ports.
	Tons.	*Tons.*	*Tons.*		*Tons.*	*Tons.*	*Tons.*
1876	780, 610	783, 656	89, 637	1882	991, 961	869, 623	209, 749
1877	831, 047	725, 110	171, 699	1883	1, 017, 853	979, 087	224, 363
1878	745, 919	791, 489	100, 692	1884	982, 618	927, 327	252, 631
1879	886, 711	817, 653	151, 705	1885	968, 187	897, 199	258, 561
1880	850, 080	829, 414	134, 622	1886	811, 582	875, 256	188, 000
1881	932, 569	872, 699	144, 187				

The imports of foreign refined sugar have been as follows:

Years.	Tons.	Years.	Tons.
1876	139, 820	1882	
1877	171, 492	1883	

The following are the full particulars of the imports of raw and refined sugar, according to the Board of Trade returns, up to 30th November:

Raw.	Tons.
Germany	257, 519
Holland	12, 752
Belgium	31, 239
France	1, 870
British West Indies and Demerara	91, 714
British East Indies	36, 984
China and Hong-Kong	2, 413
Mauritius	13, 937
Spanish West India Islands	1, 070
Brazil	25, 573
Java	190, 197
Philippine Islands	26, 551
Peru	21, 115
Other countries	28, 648
	741, 582
	70, 000
Add probable imports for December	811, 582
Total	

Refined.	Tons.
Germany	79, 761
Holland	54, 684
Belgium	5, 041
France	44, 335
United States	70, 905
Other countries	41, 072
	295, 798
	30, 000
Add probable imports for December	325, 798
Total	1, 137, 380
Grand total	

In dealing with the general question of importations reference was made to the increasing importance of the trade in foreign refined as compared with the regrettable state of affairs observable in connection with business in the raw article, but as changes even here have occurred it becomes necessary to revert to the matter as a separate and distinct issue. These changes, which have reference mainly to the sources of supply, have, of course, arisen from the treatment which the bounty as a stimulating medium required to undergo towards deciding the supremacy of one or other of the contesting countries. Beginning with the year 1880 and continuing onwards to 1883, France held the field as being by far the greatest exporter. In each of these years she never sent less than 65,000 tons, while in 1880, and again in 1883, her exports to this country reached 79,150 tons and 72,190 tons respectively. During the same term of years Holland occupied the second place with 40,363 tons in 1881, 39,518 tons in 1882, and 50,453 tons in 1883. In 1884 France began to show signs of weakness, and Holland, with an export of 66,373 tons that year against 52,310 tons from France, now stood at the head of the list. In the same year America entered the field, and when the result at its close became apparent it was seen that she only fell short of France by 197 tons, her exports having amounted to 52,113 tons. The American refiners having thus experienced the benefits accruing to themselves from the system of bounties now took up the matter in an energetic way, for at the end of the following year, 1885, it was made clear that they had not only become the leading exporters, but that they had in fact, with exports reaching the enormous aggregate of within a fraction of 115,000 tons, taken possession of fully two-fifths of the entire trade. Holland in that year contributed 63,855 tons, or 2,518 tons less than she did in 1884, while France had sunk to the level of a third-rate bounty giver, as seen in the reduc[illegible] quite one-half her returns for the immediately [illegible] was being waged, Germany was [illegible] distinguished.

ations, was increased to 330,000 tons towards the latter end of June. From that period down to the present date the quantity has been reduced to 188,000 tons.

The exports of raw sugar for eleven months have been 31,655 tons against 21,155 tons for the same period last year.

The total exports of British refined sugar from the United Kingdom for the eleven months ending 30th November last have been 39,938 tons, and in this respect it is again noticeable that a further contraction in the trade has taken place. In 1884, when prices took much the same course they have done this year, the exports reached 59,884 tons, while last year, when prices followed an ascending scale, they were 46,826 tons against 52,574 tons in 1883, 48,072 tons in 1882, and 40,031 in 1881.

Comparing the entire business of this country with what has taken place in the four American ports, it appears that the total quantity passing into the commerce of these markets down to the 30th November last was 1,037,380 tons in the case of Great Britain and 1,090,955 tons as regards America. That of these respective quantities 295,798 tons were received into the United Kingdom as refined and 741,582 tons as raw sugar, while the total quantities delivered from these imports, and from the stock left over from last year, were 784,654 tons for refining purposes, 31,655 tons of raw sugar were re-exported, while 10,242 tons and 39,938 tons were also exported as foreign and British refined respectively. As concerns America 1,090,955 tons were imported, of which 1,032,039 tons were melted, and of the latter, 73,853 tons were exported as granulated, cubes, &c., while 10,387 tons in a crude state were transferred to other markets. With respect, therefore, to the question of refining, the American returns exceed those of the United Kingdom by 247,385 tons. The imports into America up to 30th November have consisted of 974,662 tons of foreign cane sugar and 115,000 tons of beet-root, against 996,806 tons and 86,122 tons as the total of last year, while the exports of refined have been 73,853 tons against 110,298 tons for the eleven months of 1885. The consumption of sugar in the States and in the United Kingdom for the three past years compares as follows:

Years	Through the four Atlantic ports.	In the United Kingdom.
	Tons.	*Tons.*
1884	935,648	1,080,232
1885	993,409	1,153,581
1886*	1,033,962	1,113,019

*Estimate up to end of year.

The visible supplies of sugar available for Europe and for those markets on the Atlantic seaboard of America which, to a large extent, draw from the same sources, always continued in sufficient abundance to meet all the possible demands likely to be made upon them. Indeed, in this respect, the figures given from time to time throughout 1886 kept so well abreast of those stated for the corresponding dates in the preceding year that the deficiency of 600,000 tons predicted as certain to result from the crop of 1885-'86 never appeared in such a shape as to affect to anything like that extent the comparative position of these two epochs. The lowest point to which the supplies fell this year was 707,000 tons, while the minimum last year was 844,000 tons. The greatest difference occurred in December current, when the figures indicated an apparent deficiency of 212,000 tons as compared with those at the corresponding period last year. This shortcoming was, however, naturally viewed with indifference, appearing as it did on the eve of the ingathering of a crop generally understood to be the largest on record. At the close the visible supply stands at 1,170,000 tons against 1,200,000 tons at the end of 1885.

As it has been altogether owing to the system of bounties granted on the export of sugar by the producing countries of the Continent that, within the last year or two, a supply largely in excess of the strict requirements of the trade has been reached, and a consequent disturbance in the values of the article created, it appears after what has been stated in these respects that the position of this question deserves to be considered at some length. This indeed becomes the more necessary at a time when the system itself is *in extremis*, and while there is yet an opportunity

ference that existed between the import duty and the drawback granted on export was increased to such an extent as to amount to a substantial bounty. Remonstrances at the instance of colonial producers, sugar refiners, and the sugar trade generally, were made by the British Government, who maintained that this action on the part of the French Government was a direct contravention of the agreement entered into between Britain, France, Holland, and Belgium in 1864 for the suppression of all bounties on the export of refined sugar. For three or four years a diplomatic war was fought by the Governments of Britain, Holland, and Belgium against that of France, and several international conferences were held which were all of no avail against the apparent determination of France to hold on its course. At length the French Government suddenly came to reason on the subject, and of its own motive introduced an alteration in their fiscal policy, so far as sugar was concerned, which had the effect of somewhat reducing the export bounty. By the time, however, that the advisability of such changes had occurred to the French every loaf sugar refinery in Great Britain save one had been silenced.

After these reforms in the French law one English loaf refinery reopened, and two refiners, who up to that point had been making soft sugar, turned their attention to loaf sugar, with, it is said, some pecuniary success. To the astonishment of the sugar trade no sooner had the French modified their bounties on exports than Holland, which had been loudest in the cry against the proceedings of the French Government for their breach of the convention of 1864, engaged in the contest, and by alterations in her duties and drawbacks so arranged that the Dutch refiners should have as great a bounty as the French refiners had enjoyed. The Dutch Government were remonstrated with, but they treated all remonstrances with indifference. Their bounties on the export of sugar are still in operation, and would be more directly felt were it not that other nations have far out-distanced them in connection with a largess which provides the people of this country with sugar below the natural cost of production. At this time Germany entered as a combatant in the bounty war, but with a different plan of campaign. She did not propose so much to subsidize her sugar refiners as to benefit her sugar manufacturers, and through them the agricultural interest. By the law which the German Government passed the duty was levied on the weight of the roots that went into the fabrics instead of the finished product that was delivered therefrom. The estimated quantity of sugar that could be extracted from a given quantity of roots was much less than the actual quantity obtained, and thus the bounty was secured. The German manufacturers by skillful chemical and mechanical processes gradually increased the quantity they could extract from the roots, and were thereby enabled to augment their bounty. The consequence of this was that the manufacture of raw sugar (that is, all sugar made in the fabrics, crystals, 88 per cent. and second products) increased yearly until in the campaign of 1884–'85 they produced over 1,100,000 tons, a vast addition to the campaign of 1874–'75, when they produced only 250,000 tons. By this action on the part of the German Government the raw sugar manufacturing industries of France, Belgium, and Holland were entirely crippled, and the fabricants of these nations, especially those of France, were brought to the verge of ruin.

The quantity of sugar produced in France from the crop of 1884–'85, as compared with 1874–'75, was reduced by upwards of 140,000 tons, the figures being, 1874–'75, 450,877 tons, and 1884–'85, 308,410 tons, and this notwithstanding the fact that the total continental beet-root production increased from 1,165,356 tons in 1874–'75 to 2,545,889 tons in 1884–'85. Austria, too, entered the lists and gave a bounty to her manufacturers which went on for a time, but it has fallen to her lot to demonstrate very clearly the weakness of the system, because in the campaign of 1879–'80 the total revenue from the duty on sugar consumed in Austria was not only swallowed up by the export bounty, but the Austrian treasury had actually to pay over 1,373,362 florins besides. This naturally gave the Austrian Government an insight into the working of the system, and after repeated alterations in the method of levying the duty they eventually fixed a minimum revenue which they were bound to get from sugar, this minimum revenue to be increased every year until a certain amount is reached. The Austrian bounty is thus being gradually decreased. Latterly, and in the face of such a warning, Russia adopted the system. In July, 1885, the Russian Government, in order to avoid the ruin, and at the instigation of the Russian sugar manufacturers, is- bounty of 1 ruble per pood, equal to about £6 5s. per ton, British market was deluged months

this reason, and for the still stronger one that the granting of bounties on export is in direct violation of one of the fundamental laws of the United States it is perhaps more extraordinary than any of the others.

The Government of the United States passed a law in July, 1883, the effect of which was that a bounty of 39 cents per 100 pounds, equal to 1*s.* 9½*d.* per cwt., on all hard sugar, granulated, &c., was derivable from exports. The consequence of this has been that raw sugar imported from Europe and the West Indies can be refined in New York and re-exported to England at a price considerably under what it stands the consumer on the spot. This generosity on the part of the citizens of the United States in taxing themselves to give the English people cheaper sugar than they themselves enjoy has been the means of increasing their yearly exportations to this country from 2,340 tons in 1882 to something like 115,000 tons in 1885. A petition which was presented to the Government at Washington by a number of merchants and other traders throughout the States who did not enjoy the privileges of their sugar-manufacturing brethren gave rise to an inquiry into the question, and recently a reduction of 22 cents per 100 pounds was provisionally ordered pending a further investigation as to the remaining 17 cents still left for the United States refiners. The latest development of the bounty hallucination has been the action of the French Government in adopting the tactics of that of Germany in furthering their sugar manufactures. In order to outdo the relatively moderate German bounty, however, the French have so arranged that their fabricants shall now have a bounty of about £7 to £8 per ton. According to the most recent advices, the richness of the roots for the campaign 1886–'87 is estimated to give a yield of about 10 per cent., and as the duty is only levied on the assumption of a yield of 6 per cent., 40 per cent. of the sugar produced will be exempt from duty. The estimated production of this campaign is about 500,000 tons. Forty per cent. of this gives 200,000, which at say 45 francs per 100 kilograms will leave a deficit to the French treasury of about 90,000,000 francs, equal to about three million and a half sterling.

With this sum the French manufacturers are flooding the British markets with crystals which, being fit for immediate consumption, present an element of competition against which the English refiner cannot possibly cope. What the next phase in the "war of bounties" will be it is impossible to predict. This latest move on the part of France is, however, the *reductio ad absurdum*, and so it is to be hoped that, this stage having at length been reached, some change which will place the sugar trade on a more equitable basis cannot be distant. It is rumored that the British Government have taken up the question, and are at present negotiating for the assembly of an international conference of all the powers interested for the purpose of coming to some agreement towards a remedy either by the abolition of duties on sugar in all the countries or by some other means which will have the same effect. This rumor, however, requires confirmation.

With reference to the estimates of the crops which for the year 1887 must furnish sugar for Europe and for those States of the American Republic which draw their supplies from the same sources the present calculation is that the total production will reach 4,983,000 tons, and that the following is likely to be the order in which that quantity is to be contributed:

Countries.	Estimate 1886–'87.	Yield 1885–'86.	Countries.	Estimate 1886–'87.	Yield 1885–'86.
Cane sugar.	*Tons.*	*Tons.*	*Cane sugar*—Continued.	*Tons.*	*Tons.*
Cuba	775,000	692,000	Natal	12,000	15,000
Java	365,000	366,000	Antigua and St. Kitts	20,000	20,000
Brazil	300,000	190,000			
Manila	170,000	220,000	Total	2,463,000	2,267,900
Louisiana	105,000	127,900			
Demerara	118,000	110,000	*Beet-root sugar.*		
Mauritius	100,000	114,000			
Porto Rico	45,000	40,000	Germany	950,000	825,080
East Indies	50,000	50,000	Austria-Hungary	525,000	377,031
Trinidad	60,000	51,000	France	500,000	298,407
Guadeloupe	40,000	36,000	Russia and Poland	475,000	560,312
Martinique	40,000	33,000	Belgium	80,000	48,421
Barbadoes	55,000	44,000	Holland, &c	50,000	37,500
Réunion	34,000	34,000			
Jamaica	18,000	19,000	Total	2,580,000	
Peru	40,000	35,000			

ing of the year was 66,334 tons. The imports of all descriptions of that material since then and down to the present date have been 201,805 tons. Of the aggregate of 268,139 tons as the supply available in the Clyde markets throughout the year, 233,266 tons have been delivered for refining purposes, whilst 745 tons were transshipped to other markets, thus leaving 34,128 tons of stock to be carried forward to 1887. These deliveries for refining show a diminution of 9,475 tons as compared with last year's work, and it is still more unsatisfactory to remark that contrasted with the lowest returns during the previous ten years, namely, those of the year 1876, when 239,410 tons were employed, there has been a falling off of 6,144 tons. The said imports have consisted of 84,909 tons of cane and 116,896 tons of beet-root sugar. The beet-root has been chiefly of German production, while the cane produce has been almost entirely made up of direct importations and purchases of off-coast cargoes of Java sugars. The British colonies, which in former times were the mainstay of the Clyde sugar trade, have this year only contributed 7,753 tons to its supplies. The stock assumed its largest proportions in May, when over 86,000 tons were estimated as being in warehouse. The figures thereafter followed a somewhat rapid downward course until about 33,000 tons appeared as the quantity in store in the first half of the current month. To-day the stock is estimated, according to Messrs. William Connal & Co.'s returns, at 34,128 tons.

The following table gives a comparison of stocks, imports, and deliveries to refineries from 1876 to the end of the present year:

Years.	Stocks at end of year.	Total imports.	Total deliveries.	Years.	Stocks at end of year.	Total imports.	Total deliveries.
	Tons.	*Tons.*	*Tons.*		*Tons.*	*Tons.*	*Tons.*
1876	17,566	225,834	239,410	1882	46,760	250,146	240,183
1877	39,610	262,844	240,462	1883	61,578	260,631	245,141
1878	31,734	243,796	250,745	1884	48,898	229,643	242,332
1879	32,338	247,364	246,330	1885	66,334	260,737	243,301
1880	30,668	243,352	214,308	1886	34,128	201,805	234,011
1881	36,792	270,929	260,299				

Compared with London, Liverpool, and Bristol, the following are the results:

Years.	Imports.				Deliveries.			
	London.	Liverpool.	Clyde.	Bristol.	London.	Liverpool.	Clyde.	Bristol.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
1881	335,548	258,745	270,929	43,850	332,529	251,724	260,299	44,550
1882	364,563	292,845	250,146	45,850	334,186	269,719	240,183	44,940
1883	385,178	287,093	260,631	55,930	397,460	284,944	245,141	52,950
1884	349,187	314,988	229,643	54,208	352,037	280,724	242,332	55,040
1885	325,813	262,657	260,737	53,526	326,911	277,441	243,301	49,546
1886	306,111	239,732	201,805	55,103	324,456	257,389	234,011	59,400

From these deliveries it appears that the decrease in refining in the United Kingdom chiefly applies to Liverpool.

The exports of Clyde-made sugars are about 11,000 tons, against 14,183 tons last year, and have thus shared in the weakness which has been observable in this branch as a whole. The following is a comparison of ten years' business:

Years.	Tons.	Years.	Tons.
1881	18,034		
1882	16,021		

other markets, and have in fact exhibited a lower average value than at any previous period. The following table gives a comparison of this year's values with those of the past five years:

Years.	Crystals.		Good medium.		Good yellow.		Low yellow.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1881	33 0	31 6	29 6	26 6	26 0	23 0	23 9	20 0
1882	32 3	30 3	27 0	24 3	23 9	20 9	20 3	17 0
1883	31 0	29 9	24 0	21 0	20 6	17 6	18 6	15 6
1884	29 6	20 6	20 6	12 6	16 9	10 6	15 6	9 0
1885	23 3	19 3	21 0	13 0	19 0	11 3	17 9	10 3
1886	22 0	17 3	19 3	15 3	16 6	9 9	13 3	8 9

As illustrative of the low condition to which this once valuable commodity has fallen, it may be observed that, considered weight for weight, it now ranks in point of retail value with such articles as oatmeal, barley, pease, flour, &c. Now, when it is remembered how little is needed to bring any of these commodities to the market as compared with the costly chemical and mechanical processes needful to produce and refine sugar, it appears, considering the principle upon which this anomalous position of affairs depends, as if the time for some important change could not be distant.

Of the 326,000 tons of foreign refined sugar imported into the United Kingdom this year about one-third of this quantity has passed into consumption through the medium of Glasgow importers. The following are the highest and lowest prices of each month during the year:

Month.	American granulated, "H. and E."		Dutch crushed, superior.		Dutch crushed, No. 1.		Austrian crushed.	
	Highest, c. f. i., per cwt.	Lowest, c. f. i., per cwt.	Highest, f. o. b., per cwt.	Lowest, f. o. b., per cwt.	Highest, f. o. b., per cwt.	Lowest, f. o. b., per cwt.	Highest, f. o. b., per cwt.	Lowest, f. o. b., per cwt.
1886.	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
January	19 9	18 4½	19 6	18 6	19 3	18 0	18 3	17 4½
February	18 4½	17 1½	18 3	17 0	18 0	16 9	17 3	16 0
March	17 6	16 6	17 6	16 9	17 0	16 3	16 3	15 1½
April	19 3	16 7½	17 9	16 9	17 3	16 4½	16 0	14 9
May	19 0	17 1½	17 6	16 1½	17 0	15 9	15 9	15 0
June	17 0	16 9	16 0	15 0	15 6	14 6	15 0	14 3
July	16 10½	16 3	16 4½	15 9	16 0	15 3	15 3	14 7½
August	16 3	16 0	16 1½	15 6	15 9	15 0	15 1½	14 4½
September	16 3	15 10½	16 3	15 4½	15 9	15 0	14 10½	14 6
October	16 1½	15 10½	15 10½	15 0	15 6	14 6	14 3	13 6
November	17 0	16 0	15 4½	14 9	14 9	14 3	14 3	13 3
December	16 9	15 0	15 4½	14 9	14 9	14 3	14 4½	13 9

DOMINION OF CANADA

PROVINCE OF NOVA SCOTIA

HALIFAX.

Report of Consul-General Phelan.

AGRICULTURE.

The year 1886 was a most remarkable year for fine weather, the only drawback being serious droughts in June and July and again in October. The first of these completely dried up the pastures and decreased the hay crop 10 per cent. below the average. The weather has greatly changed in Nova Scotia; the summers are lengthening, and the winters much shorter. In 1886 considerable plowing was done early in April. The season as a whole has been most favorable to agriculture, and, with the exception of hay, all kinds of crops grown here have produced abundantly. Potatoes, as well as all other roots and vegetables, have been most prolific. The fruit crop was 20 per cent. in excess of any previous year, and will continue to increase yearly as the large number of new orchards become mature. Very little wheat is raised in Nova Scotia, Western flour being so cheap that it does not pay to plant it. In some parts of the province the yield of oats exceeded the average crop by 10 per cent., and in portions of the Annapolis Valley produced 60 bushels to the acre.

APPLE CROP.

The apple crop has been unprecedentedly large, and the export to England has been larger than ever before. Between 30,000 and 40,000 barrels of Gravensteins were purchased by Americans and shipped to Boston and New York. A quantity of Nova Scotia apples was shipped to England via Boston, it being found more profitable to ship them in bond from Annapolis to Boston, thence to Liverpool and London, than to Halifax by rail and thence by steamer to England. The value of this year's crop is estimated at $600,000.

LIVE STOCK.

There is a steady improvement in the quality of the live stock raised in the province. A great many thoroughbreds have been imported of late years. The production of young cattle is greatly in excess of the demand, and when sold realize very little, if anything, above their cost. The only outlets for provincial cattle are Newfoundland and England; [illegible] very limited, and the competition with [illegible] closes that market

Portland and Boston duty free. In 1877 the Intercolonial Railway was opened up through to Quebec, and large quantities of flour began to come in from the province of Ontario. In 1879 the "national policy" (protective tariff) was adopted, and a duty of 50 cents per barrel placed on American flour, the object being to exclude it from this market. This had the effect of giving the upper provinces control of the flour markets of the lower provinces, but the freight on the railroads was so high that large quantities, probably one-half the total, were shipped in bond from Ontario over American roads to Boston, thence to Nova Scotia. A few months ago strong representations were made to the Canadian minister of railroads which induced him to grant a rebate on flour brought in certain quantities by the Intercolonial Railway from the upper provinces, so as to reduce the freight to a fraction below that via Boston and Portland. The result has been that seven-eighths of the flour trade of this province have been directed from American channels and now brought by rail direct. The total quantity of flour and meal brought from the upper to the lower provinces this year by rail was about 1,100,000 barrels.

SUGAR REFINERIES.

In my last annual report I said, "Owing to overproduction and excessive freight on railroads, the outlook for the maritime refineries is very gloomy, and unless a speedy change comes they will be compelled to shut down." The prediction was more than fulfilled. The refinery on the Northwest Arm has been closed two years, with no probability of its being reopened. The Nova Scotia Refinery sank $500,000, and closed nearly a year ago. Its original stockholders lost their stock and the refinery passed into the hands of a new company for a comparatively small sum. They reopened six months ago and have since worked it at a capacity in keeping with the demands. It employs about one hundred hands. The Halifax Refinery, on the Dartmouth side of the harbor, built two years ago at a cost of $750,000 and equipped to produce five hundred barrels of sugar daily, has also closed, and is a total loss to its proprietors. This, with the largely increased value of the raw sugar on hand, has been beneficial to the three other refineries in Canada, and now it is said they are doing a profitable business.

THE MINES.

The yield of gold in 1886 is slightly in excess of that of 1885, and will aggregate about twenty-one thousand ounces, valued at $420,000. A great deal of prospecting has been done and many discoveries of copper, iron, mica, plumbago, and manganese were made. A very rich deposit of copper and iron near North Sydney has just been disposed of to an American and English syndicate for $250,000. The output of coal was about 10 per cent. in excess of that of 1885. Of the output about 45,000 tons were shipped from Cape Breton to the United States, the largest part of the balance being shipped to

SHIPPING OF NOVA SCOTIA.

The shipping of Nova Scotia continues to show a steady decline. During the past year 134 vessels of 25,025 tons were added to the registry, while the names of 193 vessels of 38,876 tons were erased therefrom, leaving 2,913 vessels of 527,037 tons on the registry of the province, a net loss of 59 vessels of 13,818 tons. During the year 1886, 4,002 vessels arrived at Halifax; of these 892 were from foreign countries, and 3,110 coastwise. Of the foreign arrivals 528 were steamers.

TRADE.

More than one-half the exports of Nova Scotia is fish and its produce. All other industries are influenced by the fish markets. This year the fisheries have not been profitable and the exports and imports show a considerable decline from 1885. The following are the total exports and imports of Nova Scotia for the years 1885 and 1886:

Years.	Exports to all countries.	Imports from all countries.
1885	$8,782,820	$8,389,916
1886	7,891,194	8,065,666
Decrease	891,726	324,250

Fall mackerel were exceptionally fine and brought good prices, raising the average to nearly $6 per barrel. The catch was about the same as 1885, but short of other years. The United States is the principal market for pickled fish, as the West Indies are for dry cod. The trade with the latter, in consequence of the failure of the sugar crop, has fallen off more than one-half. This trade consisted in the exchange of fish for sugar, and the value of the imports at the port of Halifax from the West Indies represented the value of the fish exported to the latter from the former. The following official returns will show the falling off of this trade.

Imports from the West Indies at the port of Halifax for the years named:

1883	$1,977,885
1884	1,441,882
1885	1,029,643
1886	859,312

As every dollar of the above represents the same value of fish exported from Halifax to the West Indies in each year, the falling off has been in the same proportion. The loss of this trade has been so severely felt that the Canadian Government sent a commissioner to the West [illegible] of its decline, and to make such recommenda- [illegible] There is another serious [illegible] the

the interference of the Canadian Government with trade has entailed a loss to Nova Scotia of over a half million dollars.

The following, taken from Fisheries-Inspector Bertram's report, may explain the motive of the Government:

Another circumstance which has vastly enhanced the use of our shore fisheries to the fishermen of the United States is the greatly enlarged facilities of transit of freight from the western ports of this island to ports of the United States, added in the last few years. These facilities are, first, the Eastern Extension Railway, terminating eastward in Port Mulgrave, on the Strait of Canso, and connecting by the Intercolonial Railway with United States railways; second, the Boston, Halifax, and Prince Edward Island Steamship Line, calling weekly at Port Hawkesbury, on the Cape Breton side of the Strait of Canso. Before the existence of these facilities for freighting from Cape Breton Island to the west and south, fishing vessels fitted out from a United States port, after having obtained a cargo on these shores, had to return home to deliver it, thus causing a loss of time to vessel and crew of from three to four weeks. During good fishing time this was a serious drawback on the aggregate of the season's catch of fish; then in the case of the fall mackerel fishing, United States vessels engaging in it could not, as a rule, make more than one return fare in the season to their ports of outfit. Cases in which a vessel was able to return to the fishing-grounds and secure a second cargo in the autumn season were but very few, and regarded as extraordinary good luck. This disadvantage of having to return home with cargo has now disappeared by new channels of freight transit above referred to. Now, a United States vessel fishing on Cape Breton shores, whenever she secures a cargo, and a portion of the fishing season is yet to elapse, instead of making the long voyage home as formerly, runs either to Port Mulgrave and transfers her cargo to the railway, or enters Port Hawkesbury and freights her cargo home by the steamship line above named. By this method these vessels remain continuously on the fishing-grounds for the whole season through, and double or triple, according to the abundance of fish on the shores, the yearly aggregate catch of seasons previous to the existence of the facilities for transshipment. Of course this transfer to steamship or railway takes place only in the case of barreled fish. Fish salted on board ship in bulk has to be carried home without transfer.

In the fishing season of 1885 there were transshipped from United States fishing vessels by steamers from Port Hawkesbury, 10,340 barrels of mackerel and 40 barrels of herring.

The following was carried to United States ports during the fishing season of 1885, over the Intercolonial Railway, being such as was transferred from United States fishing vessels to the railway at Port Mulgrave station:

	Barrels.
Boston	4,900
Gloucester	5,553
Portland	725
Total	11,178

Equal to 140 car-loads, or 2,235,600 pounds.

HALIFAX.

The following statement will show the declared value of the exports from Halifax to the United States during the four quarters of the year 1886, and the totals compared with those of 1885:

Articles.	Quarters ending— March 31, 1886.	June 30, 1886.	September 30, 1886.	December 31, 1886.	Total.
Ale and porter		$182 50		$299 95	$482 45
Apparatus, electric				200 00	200 00
Animals		922 50	$605 50	477 50	2,005 50
Books			1,000 00		1,000 00
Bones	$1,351 70	2,001 68	429 00	229 71	229 71
Barrels returned		331 50	303 13	1,309 55	5,097 93
Berries	447 24	2,668 35	1,921 50	4,395 64	5,030 27
Calf-skins				437 00	5,474 19
Cotton:	455 71				455 71
Cloth	1,067 21	662 87	1,265 03	677 75	3,672 86
Waste				1,371 17	1,371 13
Coffee		2,515 95			2,515 95
Coal	479 70		169 43	528 70	1,177 83
Eggs	992 00	5,082 00	1,718 00	1,995 00	9,787 00
Emigrant effects		1,230 15	700 00		1,930 15
Furs, raw				14,288 55	85,819 05
Fish:	3,084 50	22,479 10	45,966 90	90,092 79	288,246 05
Canned	69,297 71	66,976 24	61,880 23	3,387 23	27,372 21
Dry	10,653 32	4,578 83	8,753 33	142,893 52	253,199 92
Fresh	57,055 69	7,257 29	45,988 42		330 58
Mackerel, pickled	107 83		222 75		21,851 30
Trout	4,581 00		17,270 30		22,672 24
Salmon	13,362 15	181 84	9,128 25		4,274 60
Herring	998 40		3,276 20	2,127 27	4,969 57
Alewives	388 36		2,453 94		289 50
Sounds		289 50			243 29
Glue stock		243 29			7,938 25
Hair, cattle		3,153 25	4,785 00		6,923 33
Laths		769 25	733 48	5,420 60	5,451 23
Lumber		2,490 75	177 84	2,782 64	2,379 95
Molasses				2,379 95	11,342 55
Meat, fresh	2,896 92	3,413 14	2,559 22	2,473 27	528 80
Old junk				528 80	18,143 20
Ore (manganese)	11,952 88	1,989 97		4,200 35	6,657 40
Potatoes	2,055 73	466 77	1,773 50	2,361 50	215 43
Slats				215 43	500 00
Skates				500 00	3,625 50
Specimens (Arctic)		3,625 50			3,953 00
Twine		710 00	819 00	2,424 00	16,632 76
Wood-pulp		4,970 99	7,173 24	2,623 99	
Sundries	1,864 54				
Total, 1886	183,092 89	139,202 61	221,083 19	290,628 86	833,977 00
Total, 1885	287,763 21	134,334 52	206,155 26	220,731 00	843,983 00
Increase		4,868 07	14,927 93	69,867 24	
Decrease	104,670 82				18,006 00

The above embraces only goods exported to the United States for entry and represented by invoices presented at this consulate-general for legalization, and not exports for transshipment.

The following will show the total exports and imports from Halifax to the United States and all other countries for the year 1886:

	Exports.	Imports.

HALIFAX AS A WINTER PORT.

Halifax is growing in importance as an inlet and outlet for Canadian commerce. In 1886 over 500,000 bushels of grain were received at Halifax from the province of Ontario for shipment to Europe. A great deal of sugar is being landed here this winter for shipment to Montreal and Quebec via the Intercolonial Railway. A short-line railway is being constructed across the State of Maine to connect with the Intercolonial near Moncton, New Brunswick. This will shorten the distance between Halifax and Montreal by over 200 miles. It is expected when this is completed that a large portion of the freight of the west will come over it to Halifax, and shipped from there to its destination. It is further proposed to build a road from Oxford on the Intercolonial along the shores of the Strait of Northumberland to New Glasgow, Nova Scotia, connecting with the road to the Strait of Canso, thence by the proposed road to Sydney and Louisburg, making the latter the eastern terminus of the Intercolonial Railway for the mail and passengers, and the nearest point to Europe. This is intended to confine Canadian exports and imports to Canadian ports. It is doubtful if they can overcome the difficulties of crossing the Strait of Canso and the Narrows in winter, and in spring the drift-ice, to say nothing of the inclemency of a Nova Scotia winter.

THE COTTON INDUSTRY.

There has been a material improvement in the cotton industry of the maritime provinces during 1886, showing an increase of fully 30 per cent. in the capacity and production over that of 1885. From reliable statistics gathered for the Maritime Mills I find that the aggregate capacity and production at the present time are as follows:

Number of spindles	106,600
Number of looms	2,105
Yards manufactured weekly	485,000
Yards manufactured yearly	24,250,000
Pounds of cloth and yarn manufactured weekly	160,500
Pounds of cloth and yarn manufactured yearly	8,000,000
Bales of cotton consumed yearly	18,000
Annual value of products	$2,110,000
Hands employed	2,030
Wages paid weekly	$10,400

LUMBER TRADE.

The shipment of lumber from Nova Scotia shows a marked increase over 1885, the details being:

Ports.	Vessels.	Tonnage.	Deals.
			Feet.
Guysborough	3	1,058	.....
Shelburne	5	1,553	1,455,314
Liscomb	1	391	374,550
Picton	7	3,867	1,450,932
Parrsboro	53	34,039	29,345,000
Annapolis	3	1,957	1,656,000
Yarmouth	5	3,131	2,847,800
Amherst			
Weymouth			

There were 4,933 tons of birch timber shipped: Guysborough, 1,366 tons; Pictou, 2,812 tons; Weymouth, 215 tons; Halifax, 483 tons, and Margaret's Bay, 47 tons.

The following will show the shipment of deals from Nova Scotia to transatlantic ports for the years named:

	Superficial feet.
1882	85,752,000
1883	79,918,000
1884	69,159,000
1885	79,647,765
1886	87,280,125

The following will show the exports and imports of each port in the province of Nova Scotia for the year 1886:

Port.	Exports.		Imports.	
	United States.	Other countries.	United States.	Other countries.
Amherst	$29,380	$198,348	$40,240	$27,360
Annapolis	91,671	83,593	40,649	10,644
Antigonish	12,414	82,416	10,381	48,509
Arichat	8,178	42,868	3,488	7,622
Baddeck	6,500	65,200	2,500	4,035
Barrington	62,178	9,588	17,025	.....
Bridgetown	15,000	15,000	13,000	.....
Cornwallis	.....	176,960	50,000	.....
Digby	100,000	27,000	30,000	10,000
Guysborough	50,000	19,684	6,000	524
Halifax	1,492,115	2,391,599	1,256,756	4,523,674
Liverpool	15,018	59,089	36,050	1,219
Lockeport	18,885	253,115	446,536	28,848
Londonderry	1,985	4,236	18,269	40,533
Lunenburg	53,662	666,517	81,034	26,913
Margaretville	6,347	.....	4,096	.....
North Sydney	4,500	112,000	22,000	51,000
Parrsboro	.....	273,757	16,000	18,493
Picton	77,915	46,369	58,608	48,128
Port Hawkesbury	86,740	99,209	12,168	.....
Port Hood	.....	4,288	435	284
Port Medway	42,853	32,459	1,880	407
Shelburne	11,373	20,000	15,000	1,875
Sydney	80,433	137,418	22,723	1,677
Truro	5,000	1,110	50,000	201,300
Windsor	141,200	.....	124,648	23,273
Weymouth	88,898	22,005	30,714	15,315
Yarmouth	338,942	226,240	310,192	153,635

RECAPITULATION.

From and to—	Exports.	Imports.
United States	$2,831,186	$2,700,362
Other countries	5,060,008	5,365,304
1886	7,891,194	8,065,666
1885	8,782,820	8,389,916
1884	9,183,346	9,653,104

herring, about $3 per barrel; cod, $2.25 per cwt., and other kinds of fish will show a small decrease from 1885. The total value will be about $5,000,000. If the system of estimates and values adopted by the Canadian Government for fish will be applied to this catch, it will be valued, no doubt, at $8,500,000. A very large portion of the mackerel was caught in the North Bay. No great quantities appeared on the Nova Scotia coast inside the 3-mile limits until early in November, when two schools struck in and good hauls were made by the local fishermen. I may say here that the Nova Scotia fishermen have had the exclusive control of their coast fisheries for the last year, yet the catch of mackerel within the protected waters did not reach 20,000 barrels. There has been a falling off of 50 vessels from the fishing fleet of 1885, but an increase in the number of boats is claimed. It must be remembered, however, that under the Canadian system of preparing fisheries statistics every person fishing for table use is enumerated, together with his boat, as engaged in the fisheries. In this way counties not engaged in the fisheries as an industry are credited with large quantities of fish, valued at many thousand dollars, not one of which enters into commerce.

The prosecution of the spring herring fisheries, heretofore so profitable to the fishermen of Eastern Nova Scotia, has been almost entirely abandoned, owing to the interference of the Canadian Government. Spring herring are nearly worthless except for bait. Previous to 1886 large quantities were caught and sold to American fishermen for bait at good prices and for cash. The American fishermen were their only cash customers, as the truck system prevails here for fishermen. The fish they catch are mostly negotiated in advance to the owner of the fish stage, who pays in kind. Most large fish stages have a store as an appendix, where the fishermen must go and take their pay in goods, and are seldom out of debt. The arrival of the American fishing fleet was hailed with delight by all classes, as the American dollar exchanged for bait soon found its way into and stimulated trade. Under the plea of protecting the fisheries the Canadian Government prohibited American fishing vessels from entering Canadian waters, which deprived these poor people of their only market for spring herring; consequently they had to abandon this fishery.

The following will show about the quantities of the leading commercial fish caught by the Nova Scotia fishermen for 1886:

Mackerel	barrels	105,000
Herring	do	160,000
Cod	quintals	1,000,000
Halibut	pounds	900,000
Lobsters	do	6,500,000
Fish-oil	gallons	450,000

New Brunswick.—It is very difficult to get a reliable estimate of the yield of New Brunswick fisheries. The fish statistics of the province are very unreliable, and largely in excess of the actual quantity or value. The chief fisheries are herring for sardines, salmon, lobsters, and smelts. The returns for 1886 will show an increase of the catch of smelts and sardines (herring). Fully 80 per cent. of the produce of the fisheries of this province is exported to the United States, as shown by

The value of the catch of 1886 is estimated by competent persons at $2,100,000. Official values and estimates will, no doubt, swell the amount to over $4,000,000.

Prince Edward Island.—The yield of this province will not reach within $200,000 of the value of the catch of 1885. The demand for bait being confined to the island fishermen, only about 35,000 barrels of spring herring were caught. 30,000 of which were used for bait and about 5,000 consumed as food. Cod were very scarce and show a large deficit. Mackerel show an increase of about 5,000 barrels. The lobster fisheries show a falling off of 772,409 cans. Only 3,616,784 cans were put up on the island in 1886; it took 6½ lobsters to fill a one-pound can—the yield representing a destruction of over 23,500,000 lobsters. No fishery can stand such waste. The oyster fisheries will show an increase of about 3,000 barrels. The value of the catch of Prince Edward Island is estimated at nearly $700,000; the official value will be about $1,100,000.

M. H. PHELAN,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Halifax, N. S., January 17, 1887.

Comparative statement (by provinces) showing the total value of exports, the total value of goods imported and entered for consumption, and the amount of duties collected in the Dominion of Canada, during the fiscal years ending, respectively, on the 30*th June,* 1883, 1884, *and* 1885.

Provinces.	Total exports.	Total imports.	Entered for consumption.	Duty.
Fiscal year ending June 30, 1883.				
Ontario	$32, 890, 019	$44, 666, 445	$44, 452, 804	$7, 664, 527 15
Quebec	42, 642, 986	55, 909, 871	47, 754, 996	9, 250, 349 42
Nova Scotia	9, 820, 332	10, 033, 929	9, 042, 017	1, 833, 641 31
New Brunswick	7, 520, 107	6, 972, 121	7, 265, 238	1, 514, 897 41
Manitoba	510, 469	9, 326, 324	9, 312, 053	1, 764, 805 72
British Columbia	3, 383, 342	3, 937, 536	3, 866, 856	908, 962 54
Prince Edward Island	1, 318, 549	682, 170	717, 429	166, 988 42
Northwest Territories	.....	725, 626	725, 626	68, 137 00
Totals	98, 085, 804	132, 254, 022	123, 137, 019	23, 172, 308 97
Fiscal year ending June 30, 1884.				
Ontario	26, 891, 017	41, 967, 215	40, 332, 245	6, 979, 026 22
Quebec	42, 029, 878	49, 122, 472	43, 026, 172	8, 134, 639 66
Nova Scotia	9, 599, 356	9, 653, 104	9, 183, 346	1, 907, 285 69
New Brunswick	7, 753, 072	6, 467, 888	6, 513, 924	1, 354, 886 42
Manitoba	722, 730	3, 734, 573	3, 768, 851	664, 037 61
British Columbia	3, 100, 404	4, 142, 286	4, 040, 335	884, 076 21
Prince Edward Island	1, 310, 039	822, 766	829, 032	170, 863 40
Northwest Territories	.....	486, 739	486, 739	70, 148 16
Totals	91, 406, 496	116, 397, 043	108, 180, 644	20, 164, 963 37
Fiscal year ending June 30, 1885.				
	[illegible]	39, 828, 083	39, 285, 143	6, 535, 309 32

Abstract of the total value of goods exported from the Dominion of Canada to each country during the fiscal year ending June 30, 1885.

Countries.	The mine.		The fisheries.		The forest.		Animals and their produce.	
	Produce.	Not produce.	Produce.	Not produce.	Produce.	Not produce.	Produce.	Not produce.
Great Britain	$485,408	$46,367	$1,543,014	.....	$9,577,581	$295,972	$17,979,895	$758,541
United States	2,898,518	142,385	3,560,731	15,118	9,355,736	1,078,013	6,789,562	320,529
France	311	.....	32,350	.....	252,199	.....	320	.....
Germany	32,870	.....	1,948	.....	748	.....	78,333	.....
Holland	.....	.....	.....	.....	16,790	.....	.....	.....
Belgium	830	.....	.....	.....	18,242	4,000	11,600	.....
Spain	.....	.....	7,910	.....	123,841	.....	.....	.....
Portugal	.....	.....	125,416	.....	32,917	3,245	.....	.....
Italy	.....	.....	132,507	.....	8,065	.....	178	.....
Denmark	930	.....	.....	.....	.....	.....	.....	.....
Sweden	224	.....	.....	.....	.....	.....	.....	.....
China	.....	.....	.....	.....	5,621	.....	220	.....
Japan	.....	.....	.....	.....	18,253	.....	.....	.....
British West Indies	16,077	.....	1,152,868	.....	206,494	1,555	15,097	94
Spanish West Indies	7,277	125	718,956	.....	51,797	.....	57	.....
French West Indies	.....	.....	130,235	.....	5,150	.....	.....	.....
Danish West Indies	.....	.....	38,263	.....	142	.....	3,082	6,346
Hayti	.....	.....	2,907	.....	4,008	.....	.....	.....
British Guiana	1,244	.....	97,438	.....	61,677	.....	1,422	50
French Guiana	.....	.....	.....	.....	490	.....	.....	.....
Dutch Guiana	.....	.....	.....	.....	5,496	.....	.....	.....
Brazil	.....	.....	293,022	.....	16,318	.....	.....	.....
Central American States	868	.....	15	.....	1,372	.....	110	.....
Chili	.....	.....	.....	.....	13,098	.....	.....	.....
Peru	.....	.....	.....	.....	20,991	.....	.....	.....
Argentine Republic	432	.....	2,030	.....	660,686	.....	.....	.....
Uruguay	.....	.....	595	588	144,627	.....	.....	.....
United States of Colombia	.....	.....	.....	.....	8,338	.....	.....	.....
Mexico	.....	.....	.....	.....	.....	.....	2,710	.....
Newfoundland	155,251	7,946	14,946	606	100,879	.....	399,320	81,048
St. Pierre	17,337	.....	1,014	.....	30,115	.....	55,198	164
Sandwich Islands	19,440	.....	700	.....	.....	.....	.....	.....
Australia	120	110	81,193	.....	187,011	.....	.....	118
Gibraltar	.....	.....	11,740	.....	17,380	.....	.....	.....
Madeira	.....	.....	10,203	.....	10,178	.....	.....	.....
British Africa	.....	.....	.....	.....	28,049	812	.....	.....
Egypt	2,400	.....	.....	.....	.....	.....	.....	.....
French possessions in Africa	.....	.....	.....	.....	5,419	.....	.....	.....
Totals	3,639,537	196,933	7,960,001	16,312	20,989,708	1,383,597	25,337,104	1,166,890

Abstract of the total value of goods exported from the Dominion of Canada to each country during the fiscal year ending June 30, 1885—Continued.

Countries.	Agricultural products.		Manufactures.		Miscellaneous articles.		Totals, all articles.	
	Produce.	Not produce.	Produce.	Not produce.	Produce.	Not produce.	Produce.	Not produce.
Great Britain	$5,502,763	$4,208,247	$1,335,706	$71,863	$54,684	$11,950	$36,479,051	$5,392,940
United States	8,392,341	40,101	1,135,741	488,778	485,964	79,734	32,618,593	2,164,658
France	16,016		2,113				303,309	
Germany	107,965		32,384	6,487	3,340		257,588	6,487
Holland	7,304						24,094	
Belgium	1,521	483	33,335	1,874	500		66,028	6,357
Spain			911		33		132,695	
Portugal	188	2,135	1,924	857		48	160,445	6,285
Italy			6,800				147,550	
Turkey			34				34	
Denmark							930	
Norway			83,372				83,372	
Sweden							224	
China			131	572		1,569	5,972	2,141
Japan			3,527	23		2	21,780	25
British West Indies	94,873	474	35,430	4,286	5,519	1,033	1,526,358	7,442
Spanish West Indies	19,999		4,048	530		75	802,134	730
French West Indies	6,378		8				141,771	
Danish West Indies	1,375		277	124	263	30	43,402	6,500
Hayti	31						6,946	
British Guiana	36,666		4,415	80			202,862	130
French Guiana	990						1,480	
Dutch Guiana			1,572				5,496	
Brazil							310,912	
Central American States	231		44	143			2,640	143
Chili			21,409				34,507	
Peru			207				21,198	
Argentine Republic			38,951	103	84		702,183	103
Uruguay			6,292	7			151,514	595
United States of Columbia			15,000				23,338	
Mexico			1,395				4,105	
British India			3,498				3,498	
Newfoundland	317,486	346,388	204,887	29,753	6,164	6,294	1,198,933	472,035
St. Pierre	12,166	4,245	35,056	6,523	823	61	151,709	10,993
Sandwich Island			350			100	20,490	100
Australia			146,393	725		217	414,717	1,170
New Zealand			19,000				19,000	
Gibraltar			342				29,462	
Madeira							20,381	
British Africa			69,949				34,998	812
Egypt							2,400	
French possessions in Africa							5,419	
Totals	14,518,293	4,602,073	3,181,501	612,728	557,374	101,113	76,183,518	8,079,646

Coin and bullion exported to Great Britain	$5,714
Coin and bullion exported to United States	2,021,266
Estimated amount short returned at inland ports and exported to the United States	2,948,217
Total exports	89,238,361

Abstract of the value of goods imported entered for consumption into the Dominion of Canada from each country during the fiscal year ending June 30, 1885.

Countries whence imported.	Dutiable goods.	Free goods.	Total.	Duty collected.
Great Britain	$30. 702, 359	$10, 704, 418	$41, 406, 777	$7, 617, 249 45
United States	31, 231, 947	15, 919, 254	47, 151, 201	6, 624, 100 39
France	1, 712, 324	223, 257	1, 935, 581	650, 515 29
Germany	1, 888, 846	232, 423	2, 121, 269	572, 947 91
Holland	265, 575	72, 210	337, 785	521, 3 8 20
Belgium	396, 529	82, 731	479, 260	121, 660 61
Spain	342, 707	6, 508	349, 215	154, 680 24
Portugal	57, 645	2, 721	60, 366	29, 345 65
Switzerland	215, 807	1, 859	217, 666	51, 863 04
Austria	94, 867	314	95, 211	22, 584 24
Italy	81, 915	26, 247	108, 162	33, 380 25
Turkey	161, 330	7, 479	168, 809	27, 693 75
Greece	92, 679	54	92, 733	18, 562 21
Denmark	667	.....	667	174 40
Norway and Sweden	32, 449	581	33, 030	5, 725 74
Russia	2, 434	6, 974	9, 408	316 20
China	1, 091, 896	530, 272	1, 622. 168	446, 563 35
Japan	13, 249	863, 034	876, 283	3, 589 90
British West Indies	1, 336, 947	105, 377	1, 442, 324	519, 337 32
Spanish West Indies	1, 688, 882	3, 521	1, 696, 403	804, 118 12
French West Indies	6, 682	13, 129	19, 811	3, 054 19
Danish West Indies	553	4, 975	5, 528	138 62
Dutch West Indies	1, 029	1, 679	2, 708	715 74
British Guiana	158, 463	2, 118	160, 581	122, 958 47
Brazil	1, 060, 259	86, 019	1, 146, 278	528, 731 02
Central American States	3, 115	1, 463	4, 578	1, 947 57
Chili	300	2, 500	2. 800	105 00
Mexico	3, 635	3, 793	7, 428	1, 966 60
Venezuela	.....	19, 171	19, 171	.....
British East Indies	211, 141	12, 174	223, 315	37, 330 70
Dutch East Indies	53, 915	4, 194	58, 109	28, 695 47
Mauritius	89, 622	.....	89, 622	43, 268 31
Newfoundland	5, 996	345, 109	351, 105	2, 268 61
St. Pierre and Miquelon	1, 779	2, 767	4, 546	725 94
Spanish possessions in Pacific Ocean	254, 979	.....	254, 979	122, 387 51
Portuguese possessions in Africa	131	.....	131	73 60
Persia	239	.....	239	47 80
Sandwich Islands	672	150	822	100 80
Australia	1, 010	1, 221	2, 231	188 10
Africa	5, 044	149, 875	154, 919	793 24
New Zealand	.....	800	800	.....
Total	73, 269, 618	29, 440, 401	102, 710, 019	19, 121, 253 55

WINDSOR.

Report of Consul Young.

The Windsor consular district includes the counties of Hants, of which Windsor is the county seat and the principal town of the district; Kings, which embraces the town of Kentville, Wolfville, Canning, and other important villages, and Cumberland, with the exception of that portion lying on Northumberland Strait, Amherst being the county seat. Two consular agencies are established in each county, at the following places, viz:

Hants: Kempt and Walton, in the eastern part of the county, on the Basin of Minas, the chief exports therefrom to the United States being gypsum and manganese ore. Kings: Wolfville and Canning, exporting farm products, potatoes, apples, and horses; also

From Windsor the chief export is gypsum, and in some years potatoes and apples.

TRADE.

During the past season a considerable increase in the volume of trade has been apparent in this district. The crops have been up to the average, except hay, while of fruit, especially apples, the product has far exceeded that of any preceding year. The sale of apples, chiefly for shipment to New York and London, has put in circulation a considerable amount of money, which has been felt in all the channels of trade. The exemption of green fruit from duty in the United States has proved, in this instance at least, a benefit to both producers and consumers. It may be observed in passing that no proclamation "of the governor in council" has yet appeared abolishing the duty of 40 cents per barrel on apples imported from the United States, as the executive is authorized to do by section 6 of the Dominion customs act.

CREDITS.

There are but few mercantile houses in the town of Windsor that sell at wholesale, but such as supply the retail trade, including manufacturers of stoves and other castings, furniture of all kinds, leather, cotton goods, &c., give a credit of three months, and, in many instances, by dating paper ahead, nearly or quite four months. It is proper to say that mercantile business in this district, certainly in this town, is generally conducted on a sound basis, and the rating on the books of the agencies consequently high.

SHIPPING AND FREIGHTS.

Shipping may be reported as dull and freights low, but, although the business is apparently unremunerative yet, as I am told by extensive ship-owners, it pays as well as any investment of capital, and much better than in the State of Maine, where wooden vessels of a similar class are largely engaged in the carrying trade.

Gypsum or plaster of Paris (locally known as "plaster") and other products of this district are now exported to the United States chiefly in Canadian bottoms. During the last quarter of 1886 American vessels carried only 29 per cent. of the total shipments of gypsum.

Freights during the quarter may be quoted as follows: Plaster, to Boston, $1 to $1.15; to New York, Philadelphia, and Baltimore, $1.40 to $1.60; to Alexandria, $1.50 to $1.60; to Richmond, $1.60 per ton. Apples, to Boston, 25 cents; to New York, 30 cents per barrel. Potatoes, to Boston, 10 cents; to New York, 12 to 14 cents per bushel in bulk; in barrels the same as apples.

EXPORTS TO THE UNITED STATES.

[redacted] chief export to the United States

The following statement shows the value of all declared exports from the consular district of Windsor, Nova Scotia, to the United States during each quarter of the year ended December 31, 1886:

Statement showing the value of declared exports from the consular district of Windsor, Nova Scotia, to the United States during the year ending December 31, 1886.

Articles.	Quarters ending—				Total for the year.
	March 31, 1886.	June 30, 1886.	September 30, 1886.	December 31, 1886.	
Animals—horses	$476	$3, 697	$966	$1, 365	$6, 504
Articles made in United States and returned	.....	48	.....	103	151
Coal, bituminous	.....	22, 656	2, 674	1, 338	26, 668
Cotton waste	.....	1, 242	.....	898	2, 140
Eggs	.....	128	578	.....	706
Fruit, green—apples	.....	.....	.....	50, 832	50, 832
Grindstones	.....	2, 125	3, 454	3, 605	9, 184
Gypsum (or plaster of Paris), unground	.....	30, 596	46, 944	37, 492	115, 032
Gypsum (or plaster of Paris), ground	.....	482	.....	.....	482
Household goods of emigrants to the United States	550	795	340	240	1, 925
Iron manufactures	.....	.....	.....	422	422
Manganese ore	650	5, 199	7, 032	5, 642	18, 523
Sand for molding	.....	.....	.....	310	310
Vegetables—potatoes	26, 403	34, 762	1, 631	29, 664	92, 460
Wood and manufactures of:					
Fire wood	.....	1, 556	1, 906	338	3, 800
Laths	.....	2, 693	4, 424	15, 013	22, 130
Lumber, sawed	.....	5, 263	17, 587	7, 980	30, 830
Piling (or logs for piles)	.....	32, 337	26, 271	9, 629	68, 237
Ships' knees	.....	1, 501	.....	.....	1, 501
Sundries	78	53	91	120	342
Total in 1886	28, 157	145, 133	113, 898	164, 991	452, 179
Total in 1885	.....	.....	77, 332	59, 688	.....
Increase	.....	.....	36, 566	105, 303	.....

It will be observed that gypsum is exceeded in value by timber, lumber, and other manufactures of wood, the latter amounting to $126,498 and the former to $115,032, while potatoes, the product of one county reached $92,460, and apples in a single quarter to $50,832. An increase in the shipments of coal may be looked for in the early future, and also of manganese ore, so important an export as to deserve especial mention hereafter. Fruit, already referred to, and the agricultural and horticultural capabilities and products of this district will receive due consideration in a separate report.

IMPORTATIONS FROM THE UNITED STATES.

Anthracite coal is used to a considerable extent in and near Windsor, and is kept on sale by two large dealers. Refined petroleum, sulphuric acid, corn meal, flour to a limited extent, hardware, musical instruments, clocks and watches, glassware, fancy goods, raw cotton, pitch, pine and some white-oak timber for ship-building, cordage, cotton duck for sails, drugs and medicines, furniture to a limited extent, picture-frames, some cotton and woolen goods, school, scientific, and other books, some stationery, boots and shoes, [illegible]

consular officer where the goods he needs can be obtained to the best advantage. His proximity to the United States, especially to New England, enables him to obtain full information regarding the American market.

Hardware.—From Windsor dealers the information is obtained that only a part of the manufactures of iron under the general name of hardware is of United States production. More than one-half of what is designated "shelf-hardware," the whole of door-locks and a fair proportion of other locks and of hinges are made in the United States. Hand-saws are chiefly Disston's or other first-class make. Of table and pocket cutlery, part comes from England and the remainder from Germany, the latter country sharply competing with England in quality and underselling in price. Of ordinary hardware, hammers, screws, wire nails, also pumps, shovels, and spades, the chief supply comes from the province of Ontario, some from Montreal, cut nails and some other iron articles from Saint John and Saint Stephen, in New Brunswick; barbed wire for fencing comes from Ontario; stoves and many other articles of iron, including windlasses, capstans, winches, &c., all of standard quality, are made by the Windsor Foundry Company. Except in certain lines of goods and in novelties as they are presented, there appears to be no opening within and beyond this district for increased consumption of goods produced in the United States. And why? Is it because in excellence of manufacture, in style or design, the product of American mills and factories is inferior? Quite the contrary. In most respects they are superior, in all equal, to the manufactures of any other country. An inexpert myself, I submit the testimony of experts, of residents here, whose preferences are certainly in favor of home or Canadian-made articles.

Cordage.—A member of one of the two large ship-building firms and another large ship-builder and ship-owner in another county unite in the expressed opinion that manila rope made in the United States is superior to any made in Canada. "We buy from Halifax and Montreal," said one; "both make good rope, but not equal to American." The other, in reply to a question, said that the Halifax company makes good cordage, and the Montreal manufacturers profess to make it equal to the American, but do not. "In what consists the difference, as all must use the same kind of hemp?" was asked. "I scarcely know, but you can distinguish the American, even by the smell. It is softer, smoother, and more pliable. The captains greatly prefer it." It may be mentioned that ship-builders in the Dominion receive a drawback of three-fourths of the duty they had paid on imported cordage, and on sail-cloth and all imported articles used in building or fitting out ships the duty paid thereon is returned, except 5 per cent. of the declared value.

Agricultural implements.—In view of the agricultural capabilities of this part of Nova Scotia and of the extensive use of farm tools therein, my inquiries as to the comparative excellence of those manufactured in the United States and in Canada were extended and continuous. The presi- ding members of one of the agricultural

was asked. "Better because lighter and of better wood and other material, easier running-gear, more even, less friction, and therefore more durable." Another farmer, an officer of an agricultural society, gave similar testimony. A less intelligent man than either of the preceding, but a practical and most successful farmer, who at middle age is able to retire from the business, condensed his opinion in the following terse sentence: "All agricultural tools and implements made in the United States are, without exception, of superior quality to those of Canadian make." In the township of Windsor one experienced and intelligent farmer, and one only of the large number of whom inquiries were made, said he did not know but Canadian-made tools were as good as American.

From inquiries made by the consular agents the information was gained that in every county of this consular district the superiority of American-made farm tools is asserted. One agent, whose office is in a district of great fertility and where the sale of implements of husbandry is extensive, wrote: "Agricultural implements of all kinds manufactured in the United States are very much better than those of Canadian make, and this appears to be the unanimous opinion of the people here." The last inquiry made by me was of a dealer in Wolfville who sells mowers and other agricultural machines and tools of Canadian make. His testimony is clear and explicit, as follows: "American-made tools are decidedly better than the Canadian; whatever the Americans make is made well. The iron and steel parts of mowers and other tools are perfect, and the parts fit with mathematical accuracy, while in those of Ontario make the different parts of the machinery sometimes vary, and if this variance is only the one-hundredth part of an inch it causes friction, the machine consequently runs less easily and does not last so long as the American. The wooden parts of nearly all farm tools of American make are lighter and made of better wood."

In view of the acknowledged superiority of American-made agricultural tools, most kinds of hardware, and a variety of other articles, why are the imports from the United States into this province so limited in amount? The answer can be given in a single word, because of the *tariff*. The Canadian tariff imposes a duty of from 30 to 35 per cent. ad valorem on hardware and many other manufactured articles imported not only from foreign countries but from Great Britain and its dependencies without the Dominion.

Although owing to their superior quality the agricultural and other machines and tools made in the United States are as cheap at higher prices as those of Canadian make, yet as the first cost is from 25 to 35 per cent. higher this greater outlay at first limits the sale of American-made goods.

MANUFACTURING INDUSTRY.

Although there has been a considerable increase in the volume of manufacturing industry in Nova Scotia during recent years, yet few mills or factories have been established in this consular district except at Windsor. A cotton-mill producing gray cotton is running full time; a furniture factory finds ready sale for its chairs, chamber sets, office and

parts of the consular district there are barrel factories, saw and flour mills, tanneries, carding-mills, a few cheese factories, and one or two for evaporating fruit; in the township of Cornwallis two ax, one stove, and a number of barrel factories are reported; at Maitland there is an iron foundry; in some places phosphates or other fertilizers are produced, and at Hantsport and other places where ship-building is carried on there are industrial establishments allied to that industry. Boot and shoe, building-material, and other factories and mills and an iron foundry are in successful operation at Amherst, Cumberland County. These varied industries, important though they be, are outranked by the oldest and most important, that of

SHIP-BUILDING.

This is a large and important industry in this district, and was begun soon after its settlement by the English, about a century and a quarter ago. Vessels of small tonnage for the plaster and coasting trades and for fishing were built as required, and owing to the abundance and nearness of ship-timber and the low rates of wages the hulls, being iron fastened, were not costly. Sail cloth and cordage cost more than at present, but fore-and-aft and even topsail schooners took but a small quantity of canvas and duck for sails, and there was no superfluity of either standing or running rigging. This was before the introduction of chain cables, and those of hemp were not long enough to admit of anchorage in deep waters. As the masters were usually part owners, and as seamen's wages were low and the fare even in the cabins not luxurious, the vessels were run at a small expense; and I am told by residents who remember events that occurred sixty or seventy years ago that more money was made by small vessels in the plaster trade then than by those of much larger tonnage now.

The principal and probably the most successful firms in this province engaged in ship-building are in this district, and these grew from small beginnings. It is worthy of mention that Ezra Churchill & Sons, of Hantsport, and Bennett Smith & Sons, of Windsor, were not long since classed as the two most wealthy firms in the province in any business.

Hantsport, near the mouth of the Avon River, 7 miles below Windsor, and now a most enterprising village with more than one thousand inhabitants, consisted of about half a dozen houses fifty-five or sixty years ago, and then known as Halfway River, being at the mouth of a stream, so called, separating the townships of Falmouth and Horton. About that time Ezra Churchill came with little capital except youthful vigor, enterprise, and perseverance, bought a vessel or two on credit, was eminently successful, and subsequently engaged in ship-building, which business the firm of E. Churchill & Sons has continued up to and since the death of the senior partner. Successful in his own business, the electors of Falmouth sent Mr. Churchill for many years to attend to their business in the provincial legislature, and he was subsequently appointed senator in the Dominion Parliament.

[illegible] R. North settled at Hants-

Mr. Smith's father, Mr. John Smith, was known in other parts of the county as well as in Windsor, as a skillful shipwright, and was frequently employed, some sixty or seventy years ago, to draft and superintend the building of vessels. He may therefore be properly considered the founder of this well-known firm.

LARGE SHIPS.

The vast increase in the size of vessels, and the great improvement in their finish, rig, sea-going qualities, and general adaptation to modern navigation that has taken place since the settlement of Hants County may be regarded by some scientists as illustrative of the evolution theory. From the little craft, the Harmony, of 35 tons burden, built in Falmouth more than a century ago, through all intermediate rigs and sizes to the great ship, the W. D. Lawrence, of nearly 2,600 tons, with all the modern improvements and appliances, evolution may be clearly traced and "the survival of the fittest" observed.

The largest ships built by the two leading firms ranged from about 1,400 to 1,868 tons register; these were exceeded in size by the ships above mentioned built at Maitland, Hants County, by Mr. W. D. Lawrence, recently deceased, and which measured considerably more than 2,500 tons, the largest sea-going vessel built in the British North American provinces, and, with a single exception, the largest sailing vessel ever built.

The following large ships were registered at Windsor during the year 1886, viz: One of 1,774 and one of 1,370 tons by Bennett Smith & Sons; one of 1,716 by the Eskasoni Company; one of 1,698 by E. Churchill & Sons; one of 1,664 by J. B. North, and one of 1,493 tons by William H. Mosher, an average of 1,619 tons, or more than forty-six times as large as the Harmony.

Ship-building is also carried on at Avondale and Maitland in Hants County, Kingsport, Canning, Scot's Bay, and other parts of Cornwallis; at Spencer's Island, and other places in Cumberland County. The Big Raft at Port Joggins, which is to be rebuilt in order to be successfully launched, is not properly classed as a ship, and although not the first of its kind, yet, owing to its peculiar construction and great size, will receive special mention hereafter.

During the past year the ship-building interest has not been very prosperous, the new tonnage in Hants County amounting to only 12,614 tons. The total shipping registered at the port of Windsor consists of 189 vessels of 124,048 tons, the largest tonnage of any port in the province, outranking Yarmouth slightly and Halifax largely. Including Maitland, the total registered shipping of Hants County on the 31st December, 1886, was 232 vessels of 172,816 tons. By adding the tonnage registered at the ports of Parrsboro and Amherst, in Cumberland County, the total shipping registered in this consular district aggregates 201,268 tons. More than 80,000 tons of the shipping registered in Hants County is owned or controlled by eight individuals or firms.

COST OF BUILDING SHIPS.

For example, ships and barks of over 900 tons, copper-fastened, with a full suit of and some extra sails, having all the modern improvements in windlasses, capstans, winches, &c., to rate thirteen years at French Lloyds, can be built here at from $34 to $37 per ton, and $1 per ton additional for metal sheathing.

Sails cost considerably less here than in the United States, although the sail cloth is obtained therefrom and a net duty of 5 per cent. ad valorem paid. The reduction is in the cost of labor. The total cost of a suit of sails ready to bend does not exceed 32 cents per yard, while in New York the same ship-owners have paid 40 cents per yard. The best cotton duck of the various numbers used for the sails of a large ship costs here not exceeding an average of 20½ cents per yard, and the making and furnishing everything required from 11 to 11½ cents per yard. Sail-making where everything is found costs from 5 to 6 cents per yard.

For this and other information I am indebted to Mr. C. R. Burgess, an extensive ship-builder of Wolfville, whose ship-yard is in Cornwallis, and who owns or controls eight ships, aggregating 11,472 tons.

WAGES IN SHIP-YARDS.

For the following statement showing the average rates of wages paid in the ship-yards of Windsor and vicinity, and for other information relative to ship-building, I am indebted to the Messrs. Smith:

Occupation.	Wages per day.	Occupation.	Wages per day.
Shipwrights	$1 50	Blacksmiths	$2 00
Helpers	1 00	Helpers	1 25
Ship-joiners	1 75	Riggers	2 25
Calkers	2 25	Helpers	1 25
Helpers	1 25	Unskilled laborers	1 00

MINERAL RESOURCES.

I have already referred to the leading articles of export from this district, present and prospective, and again refer to the subsurface wealth under the above general designation.

Gypsum, or plaster of Paris (*sulphate of lime*).—Soon after the settlement of these counties, chiefly by emigrants from the older colonies, the large deposits of gypsum were discovered in the townships of Windsor, Falmouth, Newport, and what is now Kempt, and these deposits now seem inexhaustible. This gypsum was found to be valuable also for fertilizing purposes, especially in the States of Maryland and Virginia, and the demand was supplied by small vessels that carried it to Eastport and other towns in Maine, discharging their cargoes into American vessels of large size while afloat in the harbors. (This was [illegible] this district were open to American vessels or United

as of 1,120 tons, equal in weight to thirty-two cargoes of the Harmony. In former years, and until the bridge across the Avon just above Windsor was built—about fifty years ago—vessels carrying 150 tons or less sailed up the Avon and were loaded in some of the creeks in close proximity to plaster quarries, which, owing to obstructions to navigation, are now valueless. The size of the fifty cargoes shipped from Windsor during the December quarter of 1886 ranged from 215 to 1,120 tons, averaging 595 tons; of these fifty vessels, eleven carried the United States flag and cargoes averaging 724 tons each.

The total export of gypsum or plaster to the United States from Hants County during the past fifty-three years amounted to 3,267,365 tons, valued at $3,150,310.

Gypsum is shipped in a lump or unground state, and is exempt from duty in the United States, but the ground and calcined are subject to an ad valorem of 20 per cent.

Limestone is abundant throughout the district, but it is not exported to any considerable extent. Intelligent farmers lament that it is not more generally used as a fertilizer, as it is peculiarly suited to the clayey soils that predominate, and may be used to advantage on some light soils.

Grindstones.—The underlying rock of the coal formation of Cumberland County furnishes immense quantities of beautiful and compact gray and buff colored grindstones. These have for a long period of years been quarried at the Joggins quarries and shipped chiefly to the United States where the superior quality of these stones is well known. The value of these exports to the United States during the year 1886 was only $9,184.

Molding sand.—On land adjoining the town of Windsor and formerly belonging to the late Judge T. C. Haliburton (author of the Clockmaker, &c.), sand of a peculiarly smooth quality has been discovered, of which a few hundred tons were shipped to Boston during the past season. It is used in molding some kinds of brass castings, and for the purpose is unexcelled.

COAL MINES.

The only extensive coal formation in this consular district is in Cumberland County, which contains, it is asserted, some of the richest coal mines in the province; and although coal has been known for a long time to exist in certain localities, yet it has been unworked until recent years.

Spring Hill.—The mines at this place produce a soft coal which "the company claims is the best soft coal in America, particularly for locomotive and domestic use." It is brought by rail to Parrsboro, where vessels are loaded, and as the price at the place of shipment is only $1 per ton, the wonder is that the demand is not greater. I am advised by the company that "the output capacity of the mine is 2,000 tons per day; that the capacity for shipping at the wharf at Parrsboro is about 300 or 400 tons per day, that vessels carrying 800 tons and drawing 16 to 18 feet of water can load there, and that vessels are loaded in turn with very little delay. The coal is suitable for the manufacture of coal gas." From other sources the information is gained that the Spring Hill mines in 1887

this year (1887) are making." From the consular agency I learn that the shipments of coal by water from Parrsboro amounted, in 1886, to 40,508 gross tons, against 26,205 tons in 1885, and that 15,950 tons, valued at $1 per ton, were exported to the United States in the year just closed. This is a considerable increase from preceding years, the shipments to American ports being 3,104 tons in 1883, 4,562 tons in 1884, and only 2,843 tons in 1885. Owing to the working of these mines a great impetus has been given to that part of Cumberland County; a railway from Parrsboro to the mines, 27 miles, has been built, and the town of Spring Hill developed with surprising rapidity, now eclipsing in population and enterprise older and more conservative towns.

Joggins coal mines.—These mines are at no great distance from those at Spring Hill, but the shipping place is in another direction, at Port Joggins on Cumberland Basin. The Joggins Coal Mining Association has furnished a statement of the shipments of coal from the Joggins mines during the fifteen years from 1871 to 1885, inclusive, aggregating 234,558 gross tons, a yearly average of 15,637 tons. The consular agent at Port Joggins reports: "The output of coal has been rather larger the past season than for some years, and the company expects to increase the sale of coal when the Joggins Railway is completed to the Intercolonial, which it is expected will be early next summer."

In addition to the mines above mentioned the following are named: The Boston Coal Mining Company intends to open their mines at River Hebert, whence they can ship coal by vessels in summer, and at all times by the Joggins Railway, which will give the towns along the Intercolonial a supply of good coal. Mr. Patrick, a practical mining engineer, has a valuable coal claim close to the Joggins Railway which he is about to open up.

Miners' wages.—Coal miners at the Joggins mines are usually paid by the box or the cubic yard, and earn from $1.25 to $2 per day. At the Spring Hill mines surfacemen receive from $1 to $1.25 per day. Pitmen are paid 37½ cents per box, taking out from 4 to 5 boxes per day and earning from $1.50 to $1.87.

Manganese ore.—A quality superior to any found in the United States, it is believed, is found in large quantities in the townships of Walton and Maitland in the eastern part of Hants County. The shipments of this ore have been chiefly from Walton, where E. Churchill & Sons and others have valuable mines. A company has been recently formed to develop the manganese properties at or near "Moose Brook," where there are known to be valuable deposits. The relative prices will indicate the superior quality of the ore shipped from this county. In Pittsburgh, Pa., the quotations range from $10 to $15 per ton; at Walton the average declared value of this ore exported to the United States exceeds $72 per ton. The further development of these valuable deposits in Eastern Hants will be observed with interest, and a special report thereon will be made in the early future.

Other minerals.—Considerable interest has been excited by the discovery of antimony in Rawdon, Hants County, in which township there [illegible] of gold

PROVINCE OF ONTARIO.

CHATHAM.

Report of Commercial Agent Eddy.

Within the limits of this consular district the resources are chiefly agricultural. The soil is of great richness and of unusual depth. It is one of the finest grain-growing districts in Canada. Fall and spring wheat and all other cereals of the choicest quality are grown in lavish abundance. It is the only locality in Canada where corn and white beans are successfully grown. The soil is generally strong clay loam on the timber lands, and a black vegetable mold with clay subsoil on the prairies. No better proof of the richness of the agricultural resources of the locality can be adduced than a reference to the shipping returns in 1884 and 1885. The estimate of the produce dealers puts the shipment of wheat from the county of Kent alone, which comprises the largest part of the consular district, at 1,200,000 bushels, the greater portion manufactured into flour; 100,000 bushels barley, 250,000 bushels white beans, 150,000 bushels corn, 500,000 bushels oats, 25,000 bushels clover seed, 15,000 hogs, 5,000 pounds dead poultry, 500,000 dozen eggs, and hundreds of car loads of horses and live stock. Of the above shipments about the following proportions are exported to the United States: Wheat and flour, 20 per cent.; barley, 60 per cent.; beans, 75 per cent.; corn, 10 per cent.; oats, 10 per cent.; clover seed, 50 per cent.; poultry, 75 per cent.; eggs, 90 per cent.; horses and live stock, 80 per cent.

There is an increase in the acreage sown with fall wheat this season. The drought of the summer and the low prices have deterred a good many farmers from sowing as much as usual, but, on the other hand, the failure of spring wheat in many places led others to try a greater breadth of winter wheat. With few exceptions the grain has made remarkable progress, and is in fine condition to withstand the hardships of winter. In some localities 40 bushels per acre of fall wheat is reported as an average crop, and a particular yield 47 bushels per acre, and several reports are made of a yield of 30 bushels per acre. Except in a few places, where there was too much rain, the quality of the grain is far above the average. Tests of weights seem to have given very satisfactory results. One case from Harwich, Kent County, of 68 pounds to the bushel is reported, and a number of returns mention weight in excess of standard.

Barley.—Barley has been a fairly successful crop. The rains in some localities have caused more or less discoloration. Still the proportion of number one will compare favorably with other years. In nearly all cases where the grain was early enough to escape the early fall rains, the sample is remarkably good and the yield somewhat above the average.

The oat crop of this section appears to be at least a full average both in yield and quality.

Rye was a fair average [illegible]

Beans.—In Kent and Essex Counties beans have been a very successful crop, though kept back to some extent by the severe drought. The sample is good, the crop harvested in good condition. Outside of this district there are few beans grown in Canada. I would call your attention to the table published in this report showing the amount of beans grown in this district. The average price paid during the past year was $1.10 per bushel.

Sorghum.—Sorghum was never very extensively cultivated in Ontario, and at present it seems to be steadily declining in favor, owing chiefly to the comparative failure of the crop for the last few years. This year's crop is sufficiently doubtful in its product to justify the anticipation of a still further decline in the small acreage now sown, though some farmers in Essex and Kent report a fair yield. The quantity grown elsewhere in the province of Ontario is so small that no report is made of it.

Field roots.—Potatoes this year have been an unsatisfactory crop in most parts of this district. The drought contributed largely to the failure of the crop. The growth of the potato plant was very much retarded by the dry weather of early summer, and it was only under exceptional circumstances that they were able to contend with this adverse influence. It is worthy of notice that special care in preparation of the soil before planting and cultivation afterwards was rewarded by superior crops.

Turnips, mangels, and carrots are, with very few exceptions, reported on most favorably.

Clover seed is another staple peculiar to this section, and is raised in large quantities.

The following table shows the area and produce of the different kinds of grain raised in the counties of Kent and Essex, Ontario, in the year 1886:

Description.	Essex.		Kent.	
	Acres.	*Bushels.*	*Acres.*	*Bushels.*
Fall wheat	32,138	712,178	63,567	1,390,846
Spring wheat	1,744	25,288	3,456	61,932
Barley	2,894	80,540	4,954	141,883
Oats	28,852	1,253,908	32,616	1,422,384
Rye	664	13,751	541	9,976
Peas	4,309	82,217	12,878	297,739
Corn	31,294	2,347,050	26,544	1,928,422
Buckwheat	660	17,932	875	18,813
Beans	483	12,075	12,069	267,932

AVERAGE PRODUCTION.

Table showing the average produce of crops per acre in Essex and Kent Counties in the year 1886.

Description.	Essex.	Kent.	Description.	Essex.	Lent.
				[illegible]	21.5

COMPARATIVE YIELD OF CROPS.

In the following table is presented the yield per acre of wheat, barley, and oats in Ontario and eight of the principal grain-growing States of the American Union for the five years 1882–'86:

Description.	1886.	1885.	1884.	1883.	1882.
Fall wheat:	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*
Ontario	20.4	24.5	24.0	10.6	26.3
Ohio	15.7	8.1	15.3	9.5	16.7
Michigan	16.3	20.0	14.0	12.0	17.3
Indiana	15.1	10.8	13.2	10.4	15.7
Illinois	13.1	9.2	12.6	10.0	16.0
New York	17.0	15.5	16.5	11.0	18.7
Pennsylvania	13.0	10.0	15.0	13.5	15.5
Spring wheat:					
Ontario	16.5	11.4	20.2	16.6	16.5
Iowa	12.5	11.2	12.5	12.7	11.0
Minnesota	12.6	11.5	16.1	13.2	13.3
Barley:					
Ontario	26.5	27.7	27.3	24.3	28.6
Ohio	27.0	20.5	26.0	21.0	19.9
Michigan	22.5	27.0	23.0	21.0	25.2
Indiana	21.0	12.5	23.0	20.4	24.0
Illinois	22.0	22.3	24.0	26.0	22.5
New York	22.9	22.0	23.0	24.5	25.0
Pennsylvania	18.0	18.5	19.0	25.0	23.5
Iowa	22.5	23.0	23.0	23.6	21.7
Minnesota	23.0	23.8	26.4	24.0	23.3
Oats:					
Ontario	36.2	35.8	38.9	38.5	36.4
Ohio	33.0	34.5	29.0	34.0	28.0
Michigan	30.0	35.5	32.0	36.7	33.3
Indiana	30.8	31.5	30.0	30.5	27.0
Illinois	31.6	32.7	33.0	33.0	37.4
New York	29.0	28.0	30.0	32.0	34.2
Pennsylvania	32.1	27.0	28.0	33.0	27.8
Iowa	34.3	32.5	32.0	36.0	31.8
Minnesota	34.5	34.7	35.3	37.0	40.0

Apples.—The apple crop, the most important of the fruits of Ontario, has been fairly good. In general the trees have borne most freely in this district, while in the central portion of Ontario the crop has been a comparative failure. From this district thousands of barrels are being shipped to the United States and England. Prices are rather low, though profitable, the average price reported as paid to farmers in this locality being $1 per barrel, and sales to ship have been made as high as $2.50 per barrel. The estimated crop for 1886 is 40,000 barrels in Kent County alone.

LIVE STOCK.

At present the condition of live stock throughout this section is on the whole very encouraging. Cattle, sheep, and hogs are, as a rule, in high condition for commencing the winter, and if the prevailing low prices do not tempt farmers to winter too many animals for the feed they have, the outlook may be regarded as very favorable. The tendency, however, appears to be to hold live stock for higher prices, and as the supply of hay and straw is generally light, it is possible that such a large amount of rough stock may be thrown on the market in

DAIRY INDUSTRY.

The severe droughts of the season have seriously affected the cheese and butter production, although from reports gathered from this section I should say the production was about one-fourth less than the average. I am inclined to think the majority of the farmers pay more attention to beef production than to dairying. One great reason for this is the difficulty of securing efficient domestic servants at any reasonable price. The average farmer's wife has quite enough to do without taking upon herself the cares of a dairy. Wherever creameries have been introduced thus far they appear to have been very generally approved by the farmers, as stockmen prefer to dispose of their cream and feed the skim milk on the farm. The price of butter the past year has ranged from 16 to 18 cents, and 10 to 12 cents for cheese. The cattle mostly raised in this section are Shorthorns. They, with their grades, are so much in favor with farmers that for many years they were almost the only improved cattle known in Canada. Holsteins have been but recently introduced in this part of Ontario. It appears that they have found unusual favor with farmers in this section. Herefords are not raised to any extent in this locality. Polled cattle are being introduced, and several herds are owned in the county of Kent. Ayrshires, Jerseys, Holsteins, and Shorthorns are invariably favored in this part of Ontario.

MINERALS.

The mineral production is chiefly petroleum. The official returns, 1884, give the raw product at 550,000 barrels, and its value $1,210,000. The number of wells operated, 2,200; number of refineries in operation, 9. Salt has been struck near Bothwell at a considerable distance, and the brine is said to be full strength of 100 degrees.

This is equal to the best wells in Canada, and the industry is probably on the eve of great development. It is estimated that one cord of good body wood will produce, boiled down, 12 barrels of salt; the average value is 70 to 80 cents per barrel.

STAVES, HOOPS, AND HEADING.

This industry has grown to large proportions. Numerous mills have been erected in different parts of the district, giving profitable employment to thousands of people, and throwing thousands of dollars into the hands of the owners of hitherto worthless elm timber, besides materially assisting the farmer in clearing his land. I herewith annex a detailed report of the mills in this section, giving the amount invested in the plant, the amount of capital required to operate the same, number of men employed and wages paid, and the entire output of the mills.

It is estimated that 50,000,000 feet, board measure, of elm timber is [illegible] Western Ontario into the United States, and [illegible]tirely used in the man

The duty of 35 per cent. on hoops and heading prohibits shipment for consumption to the United States. All the hoops and heading manufactured here are used for Canadian and European trade.

The following table will give the number of mills engaged in manufacturing cooperage stock, the amount of capital invested in the plants, the number of men employed, the average wages paid, skilled and unskilled labor, the amount of capital required to carry on the business, and the entire output of the mills:

Number of mills	25
Amount of capital invested in the plants	$348,000
Number of men employed	1,255
Amount paid skilled labor, per day	$2 00
Amount paid unskilled labor, per day	1 20
Amount of capital required to carry on business	696,000
Entire output of mills	820,500

The manufacturers of cooperage stock in this consular district have petitioned the minister of finance for the Dominion of Canada to ask Parliament to put an export duty on elm logs, elm stave-bolts, and basswood heading-bolts, for the following reasons:

(1) That each year there is exported from the above-mentioned district large quantities of elm saw-logs, elm stave-bolts, and basswood heading-bolts, which are taken just across the international boundary between Canada and United States and there manufactured into staves, hoops, and heading.

(2) That by the process of manufacture of such staves, hoops, and heading the value of the raw material from which they are taken is enhanced more than three fold, and when this raw material is taken to the United States to be manufactured Canada is losing the advantage of having it manufactured here; loses at least double the value of such raw material.

(3) That the duty charged by the United States upon cooperage material imported from Canada is as follows: Upon hoops, 35 per cent., upon staves 10 per cent., and upon heading 35 per cent., and manufacturers here are compelled to pay duties at those rates upon such prices for said cooperage stock as the officials at Washington see fit to fix, irrespective of the actual values or market prices here.

(4) That by having to pay such duties, and by having to pay duties upon the prices fixed at Washington, the manufacturers here are placed at a great disadvantage in the American market in competing with the manufacturers across the international border who get their raw material in Canada at the same rates as the manufacturers here, and escape paying any duties by manufacturing in Michigan.

(5) That at present about five times as much cooperage raw material is exported as is manufactured in Canada, and unless something is done to check the export of such raw material the whole supply will be gone from said counties in five years.

(6) That owing to the large number of cooperage mills now erected in Western Canada, and the competition thereby engendered, checking the export of raw material would not have a tendency to permanently depreciate the value of such logs and bolts.

Your petitioners submit that the cooperage industry is as deserving of protection at the hands of the Government as any other industry carried on in Canada, and they pray that it may be protected and fostered by the imposition of an export duty upon elm saw-logs, elm stave-bolts, and basswood heading-bolts.

JAMES EDDY,
Consular Agent, Chatham.

LONDON.

Report of Commercial Agent Washington.

REMARKS UPON EXPORTS.

This subject was treated in detail in a report upon the business of the March quarter of 1886, which was inserted in the Commercial Relations for 1884 and 1885, and as there have been no radical changes since then an analytical treatment of same would more or less plagiarize what has before been made public and is unnecessary. It will be seen from the subjoined table that the general increase for year ending June 30, 1886, as compared with 1885, was $116,517.52 in volume, which, I think, indicates a very healthy condition of trade, being an increase of 19.76 per cent. over previous year. I have therefore paid especial attention to our trade with Canada, under its different headings, which I think will be of greater interest and value to our merchants.

Statement showing the declared value of exports from the consular district of London, Ontario, to the United States during the four quarters of year ending June 30, 1886.

Articles.	Quarters ending—				Total.
	Sept. 30, 1885.	Dec. 31, 1885.	Mar. 31, 1886.	June 30, 1886.	
Animals	$29,468 53	$22,198 00	$69,834 70	$38,326 50	$159,827 73
Animals for breeding		52,528 50	61,899 00	21,836 50	136,264 00
Apples, green and dried		5,122 35	2,159 00		7,281 35
Ashes, wood			1,368 00	1,939 50	3,307 50
Barley and other grain	1,201 88	36,642 04	56,663 00	7,401 50	101,908 42
Bones for fertilizers			680 00	1,884 00	2,564 00
Car wheels, "old"		9,780 25	1,557 37		11,337 62
Eggs	21,048 60	29,140 50		30,358 10	80,547 20
Flax and tow		5,550 29	20,543 86	10,066 91	36,161 06
Hay	1,032 00	1,134 00	5,647 25	4,489 30	12,302 55
Hides and sheep skins	5,512 59	8,523 57	16,249 16	6,477 75	36,763 07
Lumber	2,823 50	1,214 95	441 17	2,480 00	6,959 62
Manufactured goods	182 60	1,061 27	968 98		2,212 85
Miscellaneous	386 00	3,178 10	5,672 75	8,678 13	17,914 98
Oil, lubricating		11,662 55			11,662 55
Personal effects	16,262 00	12,778 00	24,242 99	19,455 50	72,738 49
Salt	483 00		487 20	112 50	1,082 70
Split peas			3,048 17	735 00	3,783 17
Tobacco returned			1,140 45		1,140 45
Vegetables		414 88			414 88
Total	78,400 70	200,929 25	272,603 05	154,241 19	706,174 19
Total for preceding year	79,824 49	236,719 17	128,560 99	144,552 02	589,656 67
Decrease or increase	1,423 79	35,789 92	144,042 06	9,689 17	116,517 52

I also, append a table below showing the amount of duties, approximately, paid on the exports from the consular district, from which may be gained some idea of the revenue accruing to the United States from this source.

Statement showing the approximate amount of duties payable to the United States on exports from consular district of London, Ontario, for year ending June 30, 1886.

Articles.	Declared value.	Approximate duty.	Articles.	Declared value.	Approximate duty.
				$2,212 85	Free.

The principal items of imports will be found generally treated in detail in the following remarks upon London's trade, and only those remain unmentioned which are used by the public direct or by the manufacturing interests, full particulars of which may easily be ascertained by reference to the appended tables of imports as shown at the custom-house of the port of London.

The imports to this city are steadily growing, as is seen by a comparison of the years 1885 and 1886, which show an increase of $219,671, and I learn from the collector here that present indications point to a continued and larger increase for the present year. It may not be amiss to remark here that London ranks sixth as a port of entry in the Dominion of Canada.

Value of dutiable goods imported into Canada at the port of London, and amount of duty paid thereon, year ending June 30, 1886.

Articles.	Great Britain.	United States.	Other countries.	Duty.	Rate of duty.
Agates	.....	$1	.....	$10	10 per cent.
Ale, beer, &c., bottled	$1,315	.....	.....	367 20	18 cts. imperial gall.
Animals	66	2,409	.....	495 00	20 per cent.
Baking powder, &c	.....	3,050	.....	639 38	6 cts. per lb.
Blacking	354	1,035	.....	355 25	25 per cent.
Black lead	788	239	.....	154 20	20 per cent.
Blueing	590	30	.....	155 00	25 per cent.
Books, periodicals, &c	7,175	20,190	$849	5,426 55	15 per cent. and 30 per cent.
Boot, shoe, and stay laces	527	432	.....	287 70	30 per cent.
Braces, &c	2,674	3,012	.....	1,705 80	30 per cent.
Book-binders' tools	196	32	.....	22 80	10 per cent.
Brass, manufactured	764	8,099	3,656	3,748 20	10 to 30 per cent.
Breadstuffs	3,334	17,381	12	3,496 53	Various.
Brick, &c., and drain-pipes	282	4,816	.....	1,178 65	20 per cent.
Brushes	319	2,316	.....	658 75	25 per cent.
Buttons	7,165	1,467	1,167	2,444 75	25 per cent.
Candles, &c	138	374	.....	129 60	Tallow, 2 cts. per lb.; paraffine, 5 cts. per lb.
Carriages, and parts	2,242	3,990	.....	2,051 20	35 per cent.
Cases, jewel, &c	26	163	.....	56 70	30 per cent.
Cement	108	676	.....	390 20	40 cts. per bbl.
Cider	.....	26	.....	5 20	10 cts. per gal.
Clocks and parts	.....	1,319	59	480 25	35 per cent.
Coal and coke	.....	13,869	.....	19,572 54	Anth., 50 cts. per ton; bit., 60 cts per ton.
Coal tar, &c	.....	596	.....	59 60	10 per cent.
Cocoanuts	.....	1,667	.....	503 83	$1 per 100.
Cocoa paste	167	1,596	.....	592 78	1 c. per lb. and 25 per cent.
Coffee	.....	3,082	.....	312 47	10 per cent.
Collars, cuffs, &c	2,078	4,473	.....	1,965 30	30 per cent.
Combs	3,220	221	81	880 50	25 per cent.
Copper	1,817	1,721	85	523 10	20 and 30 per cent.
Corks and corkwood	51	2,431	.....	496 40	20 per cent.
Cordage	.....	25	.....	5 00	20 per cent.
Cotton, manufactured	277,855	23,449	2,072	70,831 12	Varions.
Crapes	3,576	268	.....	768 80	20 per cent.
Chalk	30	.....	.....	6 00	20 per cent.
Drugs and chemicals	10,629	26,936	1,074	9,174 41	Chiefly 20 per cent.
Earthenware	27,932	568	5,688	11,100 70	30 per cent.
Electric batteries, &c	.....	241	23	65 00	25 per cent.
Essences, &c	.....	222	.....	93 69	$2 per gal. and 30 per cent.
Emery wheels	.....	3	.....	75	25 per cent.
Excelsior	.....	116	.....	23 20	20 per cent.
Fancy goods, flowers, &c	34,640	7,667	6,378	11,646 93	30 per cent.
Fireworks	.....	248	.....	62 00	25 per cent.
Fish	1,351	5,770	.....	1,021 08	1 c. per lb. chiefly.
Flax and jute, and manufactures of	33,742	2,334	45	8,070 60	
Fruits:					
Dried, and nuts	6,095	11,118	19,122	7,570 67	
Green	3,164	20,139	.....	5,596 54	
Furs and skins, dressed, and man-	5,850	6,460			

Value of dutiable goods imported into Canada at the port of London—Continued.

Articles.	Great Britain.	United States.	Other countries.	Duty.	Rate of duty.
Gutta-percha, and manufactures of	$8,829	$14,282	$42	$7,053 15	25 per cent.
Grease, axle, &c	.....	136	.....	5 95	1 cent per lb.
Hair, &c	1,445	1,365	.....	566 70	20 per cent,
Hats, caps, &c	32,729	50,808	104	20,935 25	25 per cent.
Hops	882	2,105	370	1,379 64	6 cts. per lb.
Ink, printing and writing	85	2,775	.....	593 40	Writing, 25 per cent.; printing, 20 per cent.
Iron, and manufactures of	68,168	109,319	855	41,294 17	10 to 30 per cent.
Steel, and manufactures of	20,920	14,995	405	8,705 75	10 to 20 per cent.
Jellies and jams	140	.....	.....	88 95	5 cts. per lb.
Jewelry	379	4,448	21	969 20	20 per cent.
Lead, and manufactures of	795	268	.....	416 24	5 per cent. and 30 per cent.
Leather:					
Boots and shoes	491	8,627	89	2,301 75	25 per cent.
Other manufactures	4,423	12,586	1,078	3,931 00	20 and 30 per cent.
Malt	638	.....	.....	71 02	15. cts. per bushel.
Marble	.....	5,636	136	1,296 00	10, 20, 30 per cent.
Mats, rugs, &c	1,093	173	.....	316 50	25 per cent.
Metal	2,698	6,942	31	2,360 25	
Mineral substances	372	1,946	.....	464 55	
Musical instruments, &c	118	8,132	2,024	2,879 00	25 per cent.
Mustard	2,112	1,665	.....	934 75	25 per cent.
Oil:					
Coal	.....	3,330	.....	1,432 06	7½ cts. per gallon.
All other	1,406	4,462	87	1,330 46	20 per cent.
Oil cloth	3,215	7,274	.....	3,256 60	5 cts. per yard and 10 per cent.
Optical goods	119	289	.....	102 00	25 per cent.
Packages	721	2,853	625	809 00	20 per cent.
Paintings, &c	107	770	18	179 00	20 per cent.
Paints, &c	3,000	6,194	225	1,588 95	
Paper, envelopes, &c	8,436	33,089	1,857	11,280 31	10 to 30 per cent.
Pencils, &c	38	1,177	479	423 50	25 per cent.
Perfumes, hair oil, &c	111	1,059	232	420 60	30 per cent.
Pickles, sauces, &c	1,241	108	.....	398 75	25 per cent.
Plants	85	361	.....	89 20	20 per cent.
Printing presses	.....	932	.....	93 20	10 per cent.
Provisions	.....	5,298	.....	1,434 92	
Paraffine wax	.....	264	.....	67 98	3 cts. per lb.
Plaster of paris, &c	.....	5	.....	1 13	25 per cent.
Salt	4	.....	.....	24	12 cts. per 100 lbs.
Seeds	2,692	7,405	707	1,609 50	15 per cent.
Silk, manufactures of	105,461	3,821	.....	32,978 88	15, 25, 30 per cent.
Slate, roofing and school slates	.....	1,485	.....	369 00	80 cts. per square.
Soap	207	2,075	246	764 18	2 cts. per lb.
Soap powder	.....	2,165	.....	826 44	3 cts. per lb.
Spices	2,933	4,839	.....	1,273 60	Unground, 10 per cent.; ground, 25 per cent.
Spirits	353	101	3,410	6,234 38	
Sponges	120	1,068	.....	237 60	20 per cent.
Starch	92	681	.....	448 02	2 cts. per lb.
Stone:					
Building and flag	.....	4,190	.....	923 55	$1 per 13 cubic feet.
Manufactures of	779	4,964	107	1,140 80	20 per cent.
Sand-paper, &c	.....	392	.....	98 00	25 per cent.
Straw, manufactures of	.....	54	.....	10 80	20 per cent.
Sugar and sirups	1,210	7,572	363	4,779 19	
Sugar, glucose sirup	.....	3,261	.....	2,712 28	2 cts. per lb.
Tea	.....	1,009	.....	100 90	10 per cent.
Tin, and manufactures of	1,290	5,245	1,768	2,076 65	25 per cent.
Tobacco, manufactured, and cigars	.....	299	2,387	1,705 22	30 cts. per lb. and 12½ per cent.
Turpentine, spirits of	.....	3,962	.....	396 20	10 per cent.
Trunks, satchels, &c	573	2,519	72	949 20	30 per cent.
Twines	81	1,846	.....	485 50	25 per cent.
Trees, fruit, &c	28	872	.....	182 48	From 2 to 6 cts. each.
Unenumerated	82	623	.....	124 60	20 per cent.
	6	3,048	.....	884 72	Cut with spirits, $1.90 per gall., 20 cts. per gall. and 20 per cent.

Free goods entered at the port of London, year ending June 30, 1886.

Class of goods.	Great Britain.	United States.	Other countries.
Produce of the mine	$690	$1,280	.....
Produce of fisheries	.....	22	.....
Produce of the forest	.....	13,042	.....
Animals and their products	4,768	92,969	.....
Agricultural products	489	58,252	.....
Manufactures	66.769	63,345	$221
Miscellaneous	235	992	2,240
Settlers' effects	1,365	25,735	.....
Tea, black and green (China)	40,089	.....	9,501
Tea, black and green (Japan)	.....	.....	9,102
Total	114,405	255,637	21,064

SUMMARY.

Countries.	Dutiable.	Free.	Totals.
Great Britain	$1,121,847	$114,405	$1,236,252
United States	776,365	255,637	1,032,002
Other countries	84,470	21,064	105,534
Totals	1,982,682	391,106	2,373,788

The statement of values of free goods imported at London has not been given in detail on account of the great variety of items included in the different classes and the comparatively small quantities of each article.

The importations of products of the mine are chiefly composed of fire-clay, pipe-clay, gravel, sand, and salt.

Products of the forest, all of which are from the United States, consist of walnut, whitewood, oak, and Spanish cedar lumber; the first named being in proportion of 75 per cent. of the whole.

Agricultural products are mostly bought of us. Tobacco, unmanufactured, $48,416; broom-corn, $7,049; vegetable fiber, $2,113. Of the latter article England supplies only $489.

Animal and other products, as follows:

Bristles: from—
- United States $12,031
- England 2,068

Grease, &c.:
- United States 27,091
- England ..... *nil.*

Hides, &c.:
- United States 42,387
- England ..... *nil.*

Products:
- United States 5,013
- England 153

Horses:
- United States 2,449
- England 5,600

These latter are entirely for breeding purposes.

While Great Britain had

paratively a new one, as early in the year 1826 a Scotchman named McGregor, with two or three associate pioneers, erected a humble-looking log shanty near the junction of the two branches of a stream, now called the Thames, that then flowed through a dense and rugged wilderness. From such an origin has grown the flourishing and beautiful metropolis of Western Ontario, with a population, including the suburbs of London, West and South, of about 40,000; consequently this year witnesses the sixtieth anniversary of its foundation. It is also a farmers' center, and surpasses any other city in the Dominion as possessing one great advantage denied Hamilton, Toronto, Montreal, and other large cities of the Dominion, being on all sides surrounded by the richest farming section in the province, the inhabitants of which look to London as their natural market. On market days the streets are thronged by the prosperous husbandman and farmer, making a bright and busy scene.

As a monetary center the figures given below will give some idea of its standing. The figures are from the official statements of the companies named:

London savings banks.

Name.	Paid-up capital.	Deposits.	Debentures.	Total assets.
Huron and Erie Loan and Savings Company	$1,100,000 00	$1,072,471 32	$595,616 67	$3,234,547 05
Ontario Loan and Deposit Company	1,200,000 00	491,191 46	1,335,097 73	3,239,695 62
Dominion Savings and Loan Company	894,343 94	806,363 24	214,282 34	2,102,871 24
Agricultural Savings and Loan Company	614,694 95	571,892 05	209,685 31	1,477,092 83
Canadian Savings and Loan Company	667,122 81	679,662 68	136,986 40	1,647,961 32
London Loan Company	552,089 09	442,665 50	108,800 00	1,157,424 96
Royal Standard	153,291 97	171,409 88		341,511 61
Ontario Investment Association	662,787 16		1,239,780 00	2,413,958 39
Empire Loan and Investment Company	80,329 53	71,136 58	12,000 00	170,331 82
Total	5,924,628 35	4,217,192 71	3,842,248 45	15,785,394 84

It will thus be seen that London, with a population of 40,000, has in its savings banks alone $4,200,000, which fact speaks eloquently for the thrift of the working classes; the additional deposits in chartered banks and the post-office savings bank raising this sum up to $6,500,000.

The loan companies, as will be seen, have issued debentures to the extent of $3,842,000, almost all of which were given for money imported from Great Britain, thus materially reducing interest and enabling all to obtain money on the most advantageous terms. Indeed, it is a notorious fact that the competition for its loans are keener here than in any other city in the Dominion.

It will also be seen that these institutions have a paid-up capital of $5,924,628, and their total assets amount to $15,785,394. When it is remembered that these are purely local institutions, having their inception, fostering, and success in London, it is indeed surprising, and I believe few cities in the United States of even 50,000 inhabitants have anything like $16,000,000 as assets to their savings banks.

The loan banks within the last few years London has established

made fewer bad debts than in any other city in the Dominion, surely attesting the sound nature of the business to be done here.

On the whole, therefore, we can fairly conclude that London as a monetary center of this Dominion actually takes a very high place, and, comparatively speaking, is second to none.

It may be said in conclusion that none of these institutions pay dividends of less than 6 per cent. and many from 8 to 10 per cent., besides returning large amounts to surplus funds.

As a proof of the excellent character of risks, one institution whose loans amounted to nearly $3,500,000 lost only $1,100 by bad security last year.

RAILWAY FACILITIES.

London's position as a railroad center is indeed an enviable one. More railroads lead into it now than there are points to the compass, and before many weeks are over it will secure connection with the Canadian Pacific Railroad, also the Michigan Central Railroad, this latter bringing it into direct connection with the Vanderbilt system and thus giving the most excellent connections with all points of the United States. Being inland this is of great importance. At the present time we have the main line of the southern division of the Grand Trunk, leading west to Chatham, Windsor, and Detroit, east to Woodstock, Hamilton, Toronto, and Suspension Bridge; the Sarnia branch going westward to Port Huron, and the London, Huron and Bruce to Clinton and Goderich; the Stratford branch running through to Saint Mary's, Stratford, and Guelph, and the Port Stanley branch giving us access to Saint Thomas and Lake Erie.

The principal drawback to all these facilities in the past has been the fact that with the exception of the two first-named roads all the other roads were a few years ago absorbed by and under the control of one company, leaving the merchants and manufacturers without the benefit of competition in respect to freight rates. This, however, on the completion of connections of the two first-named roads, will be done away with, and should any of our merchants and manufacturers or others desire to establish Canadian agencies or branches, I do not believe there is a better or more convenient place to locate than this in the Dominion of Canada.

INFORMATION FOR AMERICAN TRADERS.

Remarks upon London's commercial importance would be sadly incomplete without the mention of one of its most prominent features, its wholesale trade, an idea of the growth of which may be gained when it is known that twenty years ago there was not a wholesale house in the place, whereas now there are fifty, worth over $3,000,000 capital invested in the businesses, and who sell annually $8,000,000 worth of goods.

The business extends all over Canada, from Prince Edward Island to British Columbia, and the goods and wares are laid before the retail trade by several hundred traveling salesmen. Surely such a trade as this is worth the attention of our merchants. I lay it before each individually, in the following remarks regarding [illegible] the trade in the most

the attention of our merchants to a market that appears to be sadly neglected by them, and which I hope in the future will receive more attention, as I am sure the field will amply remunerate those who will cultivate it, for the factories which do exist here are small and incomplete compared with our own, and do not turn out the goods with the same style and finish or in such endless variety as do the American, and, moreover, the inclination is to buy from us whenever possible.

We here meet England on even ground, and as is shown in a table elsewhere given, sell them 48 per cent. of all their imports, while Great Britain, Canada's mother country, sells them only 38 per cent., which speaks well for us, and with push and energy I feel certain we could get a much larger percentage of the trade.

Wholesale houses.—For the information of merchants, manufacturers, and others in the United States doing an export trade I append a condensed list of wholesale houses, which will act as a sort of directory to those seeking a new field for trade, and show about the amount of capital invested in the various branches of legitimate business here. The estimates have been made with great care and in all cases are rather under than over the mark. The figures given are for estimated capital actually invested. Their various commercial rating and responsibilities would probably amount to double the sum.

Statement showing the various wholesale businesses carried on in the city of London, Ontario, with their estimated capital invested.

No.	Description.	Estimated capital.	No.	Description.	Estimated capital.
2	Boots and shoes	$250,000	4	Hardware, wholesale and retail	75,000
2	Carriage and saddlery hardware	50,000	2	Hats and caps	75,000
3	Crockery and glassware	200,000	2	Jewelers	25,000
3	Druggists	150,000	3	Leather and findings	100,000
7	Dry goods and millinery	750,000	6	Lumber	100,000
3	Groceries, wholesale only	400,000	2	Seeds	25,000
7	Groceries, wholesale and retail	300,000	1	Stationery	60,000
1	Hardware, wholesale only	300,000			

Boots and shoes.—Boots and shoes are largely manufactured in Canada, and there is one extensive factory in this city who also make their own leather; by this advantage, and by the use of all the most improved American machinery, they successfully rival us in cheap goods, and only buy of us a few lines of children's shoes and slippers.

A large quantity of fine goods are sold in this country, but as the wholesale men cater principally to the country and small trade who do not want expensive stock, it is sold direct to the principal retailers.

They say that Americans imitate fine French goods so perfectly that it is almost impossible to tell them apart, and consequently they are often sold as French goods.

In American rubber shoes last year a large number were bought, as allowed entry to be made at actual discount, but now the best [illegible] 35 per cent. off list price, while

Carriage hardware.—About 25 per cent. of all the goods sold by this trade in Canada come from the United States, and consist of shelf goods, carriage fittings generally, malleable castings, whip twines, wrenches, and a few patented goods.

There was a large trade done in real and artificial leather for carriages, but the home factories, high tariff, and English goods, have killed this trade.

Axles were brought in till last year, when the duty was increased from 30 to 35 per cent. A recent advance in the price of carriage-bolts in the United States has rendered them also too expensive for this market. This probably is owing to the failure of a combination of manufacturers to provide a discount for export trade.

I think we should look after this leather trade, as I find it is neglected, and showed in every line that by fair dealing and a little extra exertion that it could be controlled.

America leads in this class of goods all through, and England copies our goods, and as soon as they do, reduce the price and undersell us. So that we must keep constantly on the move to retain our trade, and change styles frequently to stay ahead. We should always try to get on staple lines, as there are large sales and profits in them.

This trade is well served and frequently visited, but if examined for openings intelligently would increase, as there are chances of more business than we now do. It is a matter of dollars and cents with the merchants here, but they give us the preference whenever possible by buying from us.

Saddlery hardware, etc.—At least one-half of the goods used in this industry come from the United States, and we have a strong hold on the trade that is unshaken by a few factories in Canada who turn out inferior goods that lack the variety both of sizes and lines of goods which we offer.

The styles of harness are rather American than English in this section of Canada, and except in bits most of the trimmings are of American make.

Curry-combs come mainly from the United States, but the English share this trade with us.

There has been a falling off in our trade in wooden hames, the prison labor on which prevents their entry into Canada.

One article comes from England for the trade that we should and ought to be able to supply. It is oak-tanned leather, none of which is made in Canada. That which is imported, however, is trimmed, that is, the belly, legs, and such useless parts for harness-making are cut off, and the side sold in a long clear strip. This brings a higher price, selling for about 65 cents per pound. We could undersell the English article without a doubt if our merchants and manufacturers would cut it as this market requires it, leaving off the useless parts, and letting the parts sold weigh from 12 to 15 pounds a side.

Let our merchants look specially to this item, and adapt our goods, as can so easily be done, to the requirements of the Canadian market.

Glass and crockery.—In glass we supply all the goods used in this market, except very fine cut glass and a few small items. The United States in this and all the other mark[illegible]
pressed glass

We formerly furnished this market with lamp-chimneys and fruit-jars; but two factories, one at Hamilton and the other at Toronto, with the aid of the tariff, now control and make a very large profit on these goods, shutting us out, however.

In lamp brass goods and lamps we have the entire trade.

While in crockery and earthenware our trade is nominal, we do not make the high-class goods cheap enough to compete with England, and the earthenware used is of very low grade—culls, seconds and thirds—that probably costs little more than the cost of packing and freight from the mother country.

London has probably the largest house in Canada in this line. The building is 60 feet front by 265 feet in depth, and four stories high; also a bonded warehouse of about the same dimensions. They sell all over the Dominion of Canada and have a large trade in British Columbia. They also buy largely of plain crockery, and decorate it upon their premises in a very tasteful manner, and afterward finish it in their own kilns; they likewise buy some plated goods from us.

Our designs and styles in glassware create their own demand, and the trade is increasing on account of their cheapness (due probably to the use of natural gas in their manufacture), which leads the consumers to use more of it.

The Canadian earthenware and pottery manufacturers import most of their clay from New Jersey; but their goods are rather inferior, and lack style and variety.

The goods we sell here run from 25 to 50 per cent. of the gross amount of all articles handled in this line.

Dry-goods trade.—Interviews with several of the largest firms in this business reveal the following state of trade with the United States:

"In 1875, 1876, and 1877 our business with the United States," says one, "was very large, and we bought over $200,000 of goods per year through our brokers in New York and from samples, but now the business we do is merely nominal, amounting this last year to only $20,000, a quantity smaller than ever before.

"There are several reasons for this great decrease. American cotton and prints ten years ago were a large item with us, and now are not bought at all.

"In the first place, the duty on all imported goods of this class has been raised from 17½ to 27½ per cent., but as England and the United States meet on equal footing at the custom-house this should not be the reason why our trade should suffer. There has lately been established in Canada a print works, but their patterns lack style, quality, &c., and do not compare with either the English or American goods. There are other reasons also. While we much prefer to buy American to either home made or English goods, as our profits on them are larger, the trade not knowing so well what they cost us, we find that American houses have ceased to look after or strive for our trade, and do not even furnish us samples. As it is, frequently when we run short of a class of goods we have to wire to the United States for [illegible] English is too troublesome.

saves us much trouble in handling, as we can sell the retailer a case as they run and not have to unpack at all."

Quite a number of American cottons and muslins were, however, sold last fall in Canada and took well with the retail trade.

English plain domestic cottons are not so good for this market as American, from the fact that they contain more starch, nor are they so pure in quality. Low-priced goods of this description are in great demand here, and if Americans made an effort they might easily get the trade again, as prices are somewhat less in New York than in Manchester, England. A queer fact, however, is that the rates of freight are about equal from the two points.

Nearly all table oil-cloths come from the United States, though recently a factory for its manufacture has been established in Canada and the duty on them increased to protect the trade.

Appended is an invoice to show the way their values are raised by Canadian customs, and special attention is called thereto, their appraisers not allowing any discount below the American Oil Cloth Association prices, whose figures they are rated at for duty.

The only other articles coming from the United States to this branch of business are corsets, web-elastics, gents' furnishings, hooks, pins, india-rubber goods, &c.

[Copy of invoice.]

* * * *Manufacturers table oil-cloths, New York, to* * * * *London, Ontario.*

		Appraised at for duty.
Jan. 15, 1887, twenty-eight 5-4 mosaics, $1.50	$42.00	$79.80
Jan. 15, 1887, twelve 6-4 mosaics, $2.50	30.00	46.20
Jan. 12, 1887, twenty pieces 5-4 mosaics, $2.35	47.00	57.00
Jan. 12, 1887, ten pieces 5-4 mosaics, $2.35	23.50	28.50
	142.50	211.50

Duty on the above in Canada 5 cents per square yard and 10 per cent. ad valorem paid on American Association prices, namely: 5-4 $2.85, 6-4 $3.85. This shows that the buyer had to pay duty on $211.50, the actual invoice price being $142.50, and this not on account of undervaluation, but simply taking American list price as a valuation.

Under the head of dry goods I have included woolens and men's furnishings, in which there is one very good house in this city. They import from us suspenders, neck-wear, celluloid collars and cuffs, as well as linen, unlaundried shirts, &c., to the extent of at least 8 per cent. of their total business.

Some ten years ago the same house imported largely American cottonades and jeans, but the tariff on them has been so raised and factories for their manufacture started on this side, which have shut us out. A few cheap dyed cotton linings, however, still come in.

American styles and fashion plates govern here, and fancy goods of our make are more popular than English articles.

There is an opening here in this business, however, for large New York houses to sell all the imported woolen goods used by shipping them direct in bond.

They of course buy more and can get better terms than the jobber here, and could act as commission agents, and embody such orders as

commission, but yet enable the comparatively small buyer from here to still obtain his goods as cheap as from the manufacturer's agents in England. At any rate I have considered it worthy of mention, and therefore brought it forward.

Millinery.—Millinery also is included under the head of dry goods, and is represented by three excellent and reliable firms in this city, who import from the United States straw and felt goods and occasionally artificial flowers, &c., late in the season to fill up depleted lines.

They also use many American hat ornaments, which they say we produce most excellently and, moreover, quite cheaply.

Their trade with us amounts at present to only 7½ per cent., but is increasing.

There is in this section of the country a very warm feeling for the United States, and all merchants express themselves desirous of buying as many of their goods from us as possible on account of the proximity of the market and the similarity of the Canadian consumers' demand to that of the United States whose goods, when prices are equal, are most popular and satisfactory to the trade. With the sympathy of the market in our favor I think that by increasing the width of our prints and packing them to suit we could regain much of our lost trade in this class of goods, though on account of duty and competition the profit would be small. At any rate it well deserves being looked after, and some small orders at least would at once result from American mills keeping the merchants supplied with a full line of samples, and if no orders resulted the loss would be very small.

Drugs.—Probably 25 per cent. of the drugs handled here are from the United States, more particularly herbs natural and indigenous to our soil; also dye-woods, sponges, in bond and from Florida and the Gulf of Mexico fisheries.

A very large amount of American patent medicines are sold in Canada, but most of the larger firms in this line have branch establishments and manufacture on this side. The business, if watched closely and well canvassed, would increase, as the proximity of our market is greatly in our favor in this as in other lines, and there is an inclination to buy as largely as possible from us.

Groceries.—The grocery trade with the United States is almost nominal, as the duties are so high as to be almost prohibitory.

The few things coming here are baking powder of a high grade and a few patented articles, while some canned goods, mainly peaches, and meats of various kinds, and some West Indian molasses, also a small quantity of tea, both the latter in bond.

There seems, I fear, to be little hope of increasing our business in this trade, as the Canadian national policy of very high tariff since its adoption has closed us out beyond recovery.

Hardware.—Hardware imported from the United States consists of saws, files, locks, and nearly all light shelf goods; plated cutlery, dry paints, whips, and agricultural and hand tools, on which articles the duty varies from 35 per cent. to 70 per cent., although the printed tariff reads to 35 per cent. The Government has, however, in- duty, which brings them

it even above them, which seems, to say the least, rather unjust, and might be looked into. We also sell here many patented articles in hardware—augers, chisels, &c.—besides fancy goods in this line. It may be noticed here that one firm in this city handles more plate and window-glass than any other house in the Dominion of Canada.

We had formerly a large nail trade—in fact controlled it—but it has been completely killed by the high duty demanded on them

Our gunpowder is preferred to what is made here, and much is imported; the duty, as in other cases, raised to about 60 per cent.

American cartridges and fixed ammunition are entirely used, and we altogether furnish at least 33 per cent. of the goods used in this line and in this market.

Hats, caps, and furs.—These three articles, particularly the two first mentioned, are very largely exported from the United States, probably amounting to 80 per cent. of the total trade.

In straw and felt goods we hold the trade, England furnishing a few very cheap lines only. Some furs of a cheap grade are also imported. A few seal-skin goods are bought of us, rubber coats, oil-skin (canvas), waterproofs; also a small quantity of home manufacture are sold, but are of an inferior quality. The English manufacturers of these goods do not change styles often enough and only have a trade in fine and expensive macintoshes.

We should give this trade more attention and do more to foster it.

Jewelry.—The jewelry trade is probably more largely and exclusively American than any other branch of business here.

In silver-plated ware we have almost the entire trade, though some goods are semi manufactured here by American firms, who find it cheaper to have branches and import their shapes in rough, and plate and finish on this side, thus saving most of the duty. In plated and rolled plate gold jewelry we stand unrivaled here, the styles being so varied, artistic, and cheap that they have created a demand for themselves and are in a great measure supplanting solid goods, as people would rather buy cheaper articles, so long as they look and wear as well as the real, and it allows them to have and wear a larger quantity, with more frequent change; consequently the market and sales are increasing.

Watch-cases, which formerly came from us, are now being made here and have superseded us almost entirely. As in them the material is the principal value, the trade cannot afford to pay a duty of 25 per cent. when the material is the largest item of value; or say the article or case cost $60, and material worth probably $40; there would be $15 for duty and $5 left for workmanship and makers' profit. This we cannot hope to overcome or to regain the lost trade.

Our watch movements are used almost entirely, supplemented by a few sloppy and exceedingly cheap Swiss ones; also a few fine ones from the same place.

There has been in the past a great deal of smuggling of these articles, as they are so small and the value so great, together with the duty of 20 per cent. has made it an inducement. The jewelers, I believe, intend to memorialize their Government to reduce this to 10 per cent., which would assist in stopping this practice and protect honest men from being undersold by unprincipled competitors.

Leather and findings.—We furnish this tra[illegible]

round, which makes their goods cost much more than ours, duty included Here is a rare and excellent opening for business if handled promptly. In the matter of oak leather, which is virtually a natural product of the United States, our tanners seem to show in all lines carelessness and consequently have no trade worth speaking of here. A case in point came to my notice while making inquiries in this line.

A roll of oak-tanned leather from Chicago, Ill., was received, bought, and duty paid on it as first-class goods; but upon being examined by the purchaser there were found to be four grades in it, and several of the hides were scarified like gridirons from wire-fence cuts on the animals before slaughter, and compared with the English butts, which are largely sold, were sadly to our disadvantage. We do not tan our leather as plump as the English, which this market demands, and consequently do not get the trade.

If our tanners would select the hides, tan them plump, and deal in good faith, the English would not be heard from, as we could easily undersell them; and as there is no oak bark in Canada and we have none else to compete with, should have and hold the trade entire, instead of doing some 15 per ceut. of it, as at the present time.

While the larger houses buy direct from the factories, the smaller buy most of their French calf and kip in bond in the United States. We might look this up further and do more in it.

Stationery.—All the machinery used in book-making, bookbinding, and in the manufacture of paper boxes is of American make, as well as straw board, note papers, envelopes, twine, pen-racks, inkstands, files, and wrapping papers.

There was formerly a large business with us in pencils and pen-holders, in fact we furnished the market; but of late the Germans have come in and undersold us, and now hold the trade.

Probably about 15 per cent. of this trade is furnished by us, the average duty being about 25 per cent.

All the papers of a high class come from Scotland, and we will probably not be able to compete with them. The paper used for printing and newspapers is of home manufacture and well protected by duty.

American letter presses were formerly used here, but they are inferior to the Scotch, and have ceased to be sold.

Wood butter-plates are manufactured here by branches of American houses. Wax and model papers, tags, rubber bands, and slates are of United States make, and as with other articles are popular in the trade, which is growing; but as will be seen, it is mainly in knick-knacks, so does not amount to much in volume.

Seeds.—Our trade in this line is increasing at the rate of 10 per cent. annually, and we now sell over one-half the stock used in this market.

Garden-seeds, in which we may be said to lead the world, comprise about 35 per cent.; the remainder being made up of timothy, clover, and corn. About 4,000 bushels of the latter from Georgia and neighboring States is sold by one house here annually, and is grown and cut before maturity for fodder and ensilage for stock and dairy farming, which is a [illegible] business in this district. Four years ago one [illegible] the market. This

Field vegetable seeds come almost entirely from England to this market, and the flower-seeds and bulbs from Germany and Holland direct.

The retail trade of London is also very important, as the county of Middlesex, in which it is situated, is the third most populous county in Canada, containing some 105,000 inhabitants in a comparatively small territory. London, being the center and largest city therein, is the natural market of the entire population, and is easily accessible from all points, while the nine railways running into it and the excellent stores bring many customers from a distance. And, moreover, as is elsewhere remarked, the retail trade in cities of this size is rather a better market for our goods than the wholesale, as the class of goods used is of a higher grade than used in country towns, which the wholesale trade supply, and most of the stores in this city are large enough to deal direct rather than pay a middle wholesaler profit.

There are also in the consular district at least a dozen towns, such as Woodstock, Ingersoll, Strathroy, &c., with populations varying from two or three to ten thousand inhabitants. These are, generally speaking, manufacturing towns, in all of which, however, we might do a share of the business.

In a future report I intend giving a description in full of this branch of Canadian business.

MANUFACTURING INTERESTS OF LONDON.

The manufacturing interests of this city are so remarkably important as to demand some notice. I attach a list of some of the most important branches, with the estimated capital invested in each. There are only eighty-eight on the list, but there are probably a hundred more, comparatively unimportant in size and capacity.

This is so large a subject that lack of space forbids my treating it in detail. I therefore reserve this for another occasion and special report, and close my remarks on the commercial importance of London by saying that the output of these factories is over $12,000,000 annually, which added to wholesale business, $8,000,000, gives the city of London a grand total output of $20,000,000 per annum. The output from neighboring cities and towns of my consular district would show an additional sum of $5,000,000.

Statement showing the various manufacturing industries carried on in city of London, Ontario, and estimated capital.

No.	Description.	Estimated capital.	No.	Description.	Estimated capital.
4	Agricultural-implement foundries	$500,000	2	Coffee and spice mills	$10,000
1	Baby-carriage manufactory	15,000	3	Engine builders	350,000
2	Biscuit and confectionery	250,000	6	Flour and grist mills	250,000
2	Boot and shoe	250,000	4	Furniture factories	300,000
4	Box-makers (paper)	10,000	6	Newspapers	100,000
3	Brass foundries	25,000	12	Oil refineries	1,500,000
3	Breweries	500,000	1	Piano	(*)
3	Brush and broom makers	25,000	1	Pottery	(*)
1	Car works	110,000	1	Scale	(*)
1	Carriage-body maker	(*)	1	Screw	(*)
10	Carriage factories	125,000	1	Soap	

HOW TO DO BUSINESS IN CANADA—GENERAL HINTS.

The proximity of this market to our own and the similarity of its demands make it rather a home than a foreign trade, hence it deserves more attention than any other outside market we sell to, and moreover its credit is better, payments more prompt and certain and more easily looked after than any other we deal with.

When it is contended that in sixteen hours and for a less number of dollars a salesman can reach this city from New York, it is rather astonishing more do not come. And, moreover, all large New York houses have Western travelers, who, in going to their territory, can make as quick a run from New York to Chicago via this place, and by stopping three days in Canada can make Toronto and Hamilton and London, which rank after Montreal in Canada as do Philadelphia, Boston, and Baltimore after New York in the United States.

I am aware there is a prejudice against this on account of trouble with Canadian customs, but if our merchants will send only piece samples that are not marketable they will have no trouble; or, if whole ones, let them pay duty, as they can easily dispose of them to the retail dealers and get out whole; that is, if they do not desire the trouble of bonding them.

Many American firms send men here either too late or too early in the season to secure the trade, seeming to think that when their travelers have nothing to do at home, or their season being over, they might as well send them to Canada. This is a great mistake. It must be remembered that in Ontario the season and climate correspond with Michigan and New England, and the time to strike the market is about the same time as the corresponding season just across the border.

Travelers sent here out of season can do no business, and they return home and report no orders, say there is no trade to be done, and give the market a bad reputation most undeservedly; this is just as it would be if a home market were worked out of season. Some merchants also seem to think that any kind of men will do for Canada, and consequently send young men here, mere boys, with loose habits, who cannot do any business at home or anywhere else on account of lack of ability, laziness, and want of fitness for the position and business.

Instead of doing this in a market where competition is close and keen, worked with first-class men from England always around and ready for an opening, they should send our best informed men and our best salesmen to meet and cope with them. And it is a fact I have noticed that the young and worthless commercial travelers are always complaining of bad business, whereas the old, energetic business men seldom fail to meet with success and leave with their order-books well filled.

I have just seen one of our American travelers who succeeded in obtaining an order for 20,000 pairs Club skates from one house. He was a sharp, shrewd man, or he would not have got it. For this kind of man there are more such orders, but they must be watched and worked for

certified. One house in New York lost an annual trade of $20,000 by repeated carelessness of shipper in this particular. Again, each case should be numbered, as it may be in bond and required to be taken out separately. A distinct set of numbers for each house who buys here should be used, instead of simply the number of the case in the order it was packed by the American firm of shippers. This plan is carried out by all large shippers from England to Canada. The exact terms of the sale should also be shown on the invoice, as frequently it reads net cash, while the terms are really sixty or ninety days. In a case of this kind, where no time is inserted, the Canadian customs add 5 per cent. to the invoice and charge duty thereon.

These items are important and should be carefully attended to if our merchants desire to build up and make a success of the trade of all kinds in this market.

I again desire to call attention to bonded business, which, let our merchants remember, they can sell almost every imported article they bring into New York in this market and make a profit thereon, as most of the retailers handling this class of goods buy from the Montreal wholesale houses, who make a profit thereon.

We can import foreign goods to the United States and reimport them in bond without paying United States duty, and lay them down here as cheap as the Montreal merchants, and make their profit.

Canadian customs are the most important factors in our trade with the Dominion, and the officers in charge are rendered overzealous sometimes by the fact that they receive, I believe, one-half of the proceeds of all seizures and fines, even though the same be made by themselves, and I understand some officers make more from this source than they receive in salary.

While their action in many cases may be justifiable, sometimes it is doubtful. The seizures are the means of establishing a higher rating, or other obstructions to goods coming in. Further, these seizures are always likely to be sustained by the commissioner of customs, as he on general principles desires to sustain his subordinate officers.

The actual prices paid for goods and the export discounts go for nought with them, and they only take as a valuation for duty such prices and discounts as are published in the trade journals of the United States.

CANADIAN CUSTOMS DISCRIMINATION AGAINST AMERICAN PRODUCTS.

Elsewhere in this report are samples of this as regards rubber shoes, table oil-cloths, and hardware, and I append another more striking case in detail, where we are certainly done an injustice by the customs authorities here. Full details are given, as the trade in Paris greens probably amounts to $500,000 per annum, and we should and would secure all the trade if treated as the most favored nation, our prices being really lower than theirs. I think this particular case should be at once looked into, and, if possible, corrected by the United States Government, as there is no doubt at all but that we are very unreasonably discriminated against in it.

In the United States they have a Paris green combination regulat-

applies to deep shade only, the only shade made in the American market.

To make the deep shade the manufacturers always have in each batch some that is off or inferior in color, and which in value is worth some 2 or 3 cents per pound less than the deep shade, and this particular quality is not offered or allowed to be offered for sale in the United States by the combination; consequently it is sold to Canadian buyers at 2 or 3 cents per barrel less than the combination price for the superior article. Thus the United States find an outlet for it. What we contend is, that the inferior article, not having an official list value, should be allowed to be entered at Canadian customs at the sworn invoice price, and not have to pay duty as per figures given herewith.

DEEP SHADE.

	200-keg lots.	100-keg lots.	50-keg lots.	Per pound.
	Cents.	*Cents.*	*Cents.*	*Cents.*
Combination price in United States for export	12	12⅛	13	14
Raised to list price of	15	15⅛	17	17⅛

OFF SHADE.

Invoice price of off-shade	10	10⅛	11	12
Duty paid on	15	15⅛	17	17½

Which shows that, regardless of cost or quality, the duty on first-class goods is always charged. This shuts out the American article every time when the appraisement of goods is thus rated; but the English article suffers under no such disadvantages, as, if the English invoice calls for price of 10 cents per barrel, that is all duty is collected on.

CANADA'S COMMERCE.

Having dealt with the trade of my own consular district, which is of comparatively small importance when compared with that of the whole country, the appended tables, which have never been published in the forms given, and were compiled from various sources by myself, are interesting and valuable, as they treat in a remarkably analytical way of the increase and decrease of trade to all countries and of the percentages of trade done by each and the percentage of Canada's exports thereto.

Some of the more important features which closely concern the United States are as follows, and proves that we may well be proud of leading all other countries in imports to Canada, and especially Great Britain. From the appended table it will be seen that by far the greatest part of the trade of the Dominion is done with Great Britain and the United [illegible] two countries combined forming last [illegible] country; 38.10

The exports to Great Britain exceeded the imports during the past year by $366,409, while the imports from exceeded the exports to the United States by $13,348,543.

The exports from Ontario and Quebec have been much greater in value than from any other of the provinces, and in 1885 they formed, combined, 74.32 per cent. of the total. In proportion to population it will be seen that British Columbia exports considerably more home produce than any other province. In 1882 the value was nearly $53 per head, and the exports both from New Brunswick and Nova Scotia, are in the same proportion of greater value than from Quebec and Ontario. The exports from Manitoba in the past year were $499,637 in excess of that of 1884, an increase of nearly 100 per cent.

The total value of home produce exported in 1885 was 16.22 per cent. per head, being 52 cents per head less than in the preceding year and $2.40 per head less than in 1881.

We have, however, to regret that our trade should show the greatest decrease, $5,393,844, or 9.22 per cent., more than double that of Great Britain, our next greatest cempetitor, who loses $2,165,807, or only 4.05 per cent, of the total trade.

We further impair our handsome balance of trade by increasing our consumption of Canadian products by 2.35 per cent., or $912,194, while England gets still further ahead of us by decreasing her consumption of exports $1,838,522, or 4.25 per cent., which is really 6.60 of gain on us, and which, added to our decrease in loss of trade over her of 4.27 per cent., leave us 10.87 per cent. behind them at the end of the year. This is not pleasant to contemplate, and will not be if an active campaign for trade is begun, and for this purpose I have given hints, and by the method before quoted sought to show how and where it may be done. London is comparatively a small market, but it is an index of the condition of affairs throughout the Dominion, and the remedy suggested for this place will apply equally as well to our trade all over the Dominion.

Comparative statement of Canadian imports and exports from and to foreign countries for the years 1884 *and* 1885.

IMPORTS.

Countries.	Value.		Increase.	Decrease.	Rate per cent.	Per cent. of trade.
	1884.	1885.				
Great Britain	$43,677,143	$41,511,336	.....	$2,165,807	4.95	38.60
United States	58,489,121	53,095,277	.....	5,393,844	9.22	48.74
France	1,690,076	1,775,172	$85,096	.....	5.03	1.63
Germany	2,071,544	2,173,938	102,394	.....	4.94	2.00
Spain	393,182	298,314	.....	94,868	24.13	0.28
Portugal	50,796	64,603	13,807	.....	27.37	0.06
Italy	88,930	116,482	27,552	.....	30.98	0.11
Holland	386,399	358,905	52,506	.....	17.13	0.33
Belgium	468,861	506,228	37,367	.....	7.97	0.46
Newfoundland	781,190	350,398	.....	430,792	55.14	0.32
West Indies	3,430,472	3,475,066	44,594	.....	1.29	3.19
South America	1,697,456	1,214,904	.....	464,552	27.66	1.11
China and Japan	1,957,951	2,557,821	599,870	.....	30.63	2.35
Australasia	1,975					

Comparative statement of Canadian imports and exports, &c.—Continued.

EXPORTS.

Countries.	Value.		Increase.	Decrease.	Rate per cent.	Per cent. of trade.
	1884.	1885.				
Great Britain	$43,736,227	$41,877,705	.....	$1,858,522	4.25	46.93
United States	38,840,540	39,752,734	$912,194	.....	2.35	44.55
France	390,955	303,309	.....	86,646	22.42	0.34
Germany	195,575	264,075	68,500	.....	35.02	0.29
Spain	144,092	132,695	.....	11,397	7.91	0.15
Portugal	172,252	166,730	.....	5,522	3.21	0.19
Italy	247,151	147,550	.....	99,601	40.30	0.16
Holland	15,500	24,094	8,594	.....	55.45	0.03
Belgium	287,378	72,385	.....	214,993	74.81	0.08
Newfoundland	1,929,450	1,670,968	.....	249,482	12.99	1.87
West Indies	3,119,569	2,535,283	.....	584,286	18.73	2.84
South America	1,277,383	1,461,206	183,823	.....	14.39	1.64
China and Japan	60,979	29,918	.....	31,061	50.94	0.03
Australasia	502,181	415,887	.....	86,294	17.18	0.47
Other countries	496,264	383,822	.....	112,442	22.26	0.43
Totals	91,406,496	89,238,361	.....	2,168,135	2.37	100.00

My own conception of my duties as consul has led me to pay particular attention to the commercial relations and interests of the United States, and to find and keep open all existing trade, and wherever possible to create new business and make room for more of our goods and productions. To this end, during the past year I have written several hundred letters to merchants, manufacturers, inventors, and others, and in all cases have had pleasant acknowledgments and thanks, and generally they have acted upon my information and have either sent agents over, or through me have opened negotiations with the parties here.

One firm of American water-works contractors are figuring on and bidding for $1,000,000 of work, solely through my introduction and assistance, as it was a field they had never before been in and knew nothing of its opportunities.

I have also introduced several American inventions and patents, and they seem to take very well. In fact, since our nation leads the world in inventive genius, some recognition should be had for that most important class of men, and I believe that if a copy of the Patent Office Gazette were furnished to each consulate and kept on file there, it would greatly assist these excellent men and often sell their foreign rights, where, for want of knowledge of the requirements of the people of foreign countries, they as a rule lie dormant and unremunerative. Any of our consuls, by glancing over this publication, might see something that by simply calling the attention of the foreign manufacturer and referring him to the inventor would probably result in a sale.

It is my will to keep always on file American produce market reports, [illegible] to the advantage of shippers, frequently resulting [illegible] been made for lack of

I have also placed in hands of reputable real-estate men here, lands in Florida and Georgia, and their purpose is to organize colonization companies which will greatly benefit the sections named, and will absorb a proportion of the annual emigration from this place and direct it to a section where it will do much good.

WM. D'H. WASHINGTON,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY.
London, February, 1887.

OTTAWA.

Report of Commercial Agent Hotchkiss.

AGRICULTURE.

This can in nowise be considered an agricultural district.

The few farms upon the meager minimum outcropping of tillable soil, which is here and there to be found between the mountains in the smallest of valleys, are utilized for the local support, to their fullest extent, but more farm produce is imported than produced in the district. None is exported.

The large lumbering interests which are here concentrated require more farm produce than many sections of treble its population, the consumers being out of all proportion to the producers.

Cattle and hogs are brought here in large numbers, as likewise are butter, cheese, and flour in noticeable quantities, while barrel pork is imported by the thousands, mainly from Chicago, for the requirements of both city and the lumber camps.

PORK BARRELS OF PRISON MAKE.

In connection with the subject of the importation of pork from the United States, I would call attention of the Department to the clause of the Canadian customs act prohibiting the importation into Canada of any article made in whole or in part by prison or convict labor.

Some time since information was laid with the customs department to the effect that the pork barrels from Chicago were the production of the convicts in the Joliet prison.

I am warranted in saying that any case brought to the notice of the department, with sufficient proof to warrant the seizure and confiscation, of the merchandise and packages will follow, and possibly the additional fine of $200.

The Government has been very lenient in this respect in the early operations of the law—since March 27, 1885—but are not disposed to extend its clemency, for prudential reasons.

Many articles brought in in ignorance [illegible]

IMPORTS OF WHEAT AND FLOUR.

The importations of wheat and flour into this district are in quite considerable quantities, though reliable statistics thereof are not at hand. It is not unusual that heavy shipments of flour are made into Canada, manufactured in Minneapolis, and forced upon the Canadian markets even at Minneapolis prices, in order to assist in maintaining the market price at home, it being thought cheaper and more advantageous to lose money here than to depress prices or stop milling to cure the effect of a glut at the producing point.

This movement of American flour has been alluded to as a factor leading to the depression and unprofitableness of wheat-raising in Canada.

MANUFACTURES.

This district is not entitled to any standing for any variety of manufactures.

It produces nothing comparatively for exportation, except of the products of the forest.

An exception might with propriety be made in the single case of one enterprising American, Mr. E. B. Eddy, who has erected, in connection with his large lumber interests, several large factories, in which he gives employment to about five hundred persons of both sexes, and through which he is enabled to utilize the large amount of offals from his saw-mills, in which he produces about 70,000,000 feet of lumber yearly.

These offals, which are sold for fire-wood by all other makers, are by him made up into matches, box shooks, tubs, pails, washboards, &c.

The duty of 35 per cent. confines their sale entirely to Canada, except the box shooks, of which his yearly shipments to the United States will foot a sum reaching nearly $50,000.

Considering that these productions of valuable manufactures—useful and standard necessities of every community—are made from material heretofore deemed worthless and still so treated by others, are in one instance made to represent a yearly value of a quarter of a million of dollars, allusion to it becomes significant.

Is it not also evidence of the characteristic shrewdness and economic virtue of the typical New Englander?

LUMBER MANUFACTURES.

Manufacture of white-pine lumber, lath, &c., is the leading industry of this district. I had the honor recently to report fully upon the merits and importance of this industry, both of this district and of Canada, which report was published in consular reports for September last, at which time the points of the industry were so thoroughly given that it is not deemed essential to repeat the history in this report.

additional particulars may, however, with propriety be added

indirectly, who

The aggregate capital employed in this industry in the district is about $70,000,000, which sum is said to approximate the amount employed in all other manufactures combined in the Dominion.

The largest item is embraced in the cost of the timber limits, under license from the governments of Ontario and Quebec, an absolute necessity to all large lumber enterprises. The area of timber limits under license on the Ottawa River and its tributaries reaches 17,000 square miles.

The production of hewn square timber, made in the woods, the full size and length of the tree, which for many years has been so large and important a feature of the product of Canada, has fallen off immeasurably, while that of sawed lumber has correspondingly increased.

The European demand for square timber has comparatively ceased, while the demand for sawed lumber is yearly augmenting.

About 10,000,000 cubic feet will cover the present production, as against 40,000,000 ten years ago.

The exportation of sawed lumber to the United States from this district shows a decline in value of nearly 20 per cent. from 1883 to 1884, and of 25 per cent. from 1883 to 1885 (fiscal years). The quantity exported will not show a decrease. Prices on the different grades and varieties showing no decrease, it necessarily follows that this decrease of values arises from the fast depreciating quality of the production.

This I am also prepared to confirm from observation and knowledge.

There is a possibility that a change in the route of transportation may in part account for a reduction in volume of exportation.

The method of keeping the "invoice-book" in the consulates is such, that no distinction is made in entering those certificates made "in bond for export" from those which are for duty and consumption.

That a large increase in the shipment hence to Montreal and Quebec, for exportation, of lumber which has formerly passed to the seaboard through the United States for exportation is steadily transpiring there is no question.

The consulate records and returns therefrom certainly do not show the true value of merchandise going from Canada to the United States for consumption.

THE MINES.

The only mining industry now flourishing in the district is that of "apatite" or "mineral phosphate." The condition of this industry has not as a whole been quite as favorable as last year. The output shows a slight increase over 1884, being about 25,000 tons. The shipments have kept fair pace with the production, but at a decrease in market value of $3 to $5 per ton. The price has varied from $8 to $12 per ton, as against $12 to $16 in 1884. The demand for this rock phosphate is, and thus far in its history has been, mainly European. It is stated that the agricultural communities of the Old World have not been so favorably conditioned as to enable them to purchase fertilizers as freely as in previous years, and hence the slow demand upon the producers.

Your consul in November last made a lengthy report upon this industry, and endeavored therein to awaken an interest both on the part of the American dealers in fertilizers and the agricul-
large.

Scores of letters of inquiry were received at this post, following the introduction of the subject, and probably 1,000 tons, in small lots, were ordered shipped both to the Eastern and Western States, mainly for experimental purposes, quite favorable reports and increased orders is determined at how low a cost the sulphuric acid necessary to its being the sequence. The final result will only become public when it treatment can be produced in the States or even in Canada.

This mineral in its natural state is 70 to 90 per cent. tribasic phosphate of lime, and when ground to an impalpable powder and treated by bath in sulphuric acid it is made one of if not the richest fertilizer of any known commercial character.

It is now shipped to Europe under the supposition that the requisite acid can only be produced there at a cost sufficiently low to warrant its transportation twice across the ocean.

This question being the only open one respecting its adaptability by the American agriculturists will, I think, find its solution during the coming year.

About six hundred men and boys are employed in this enterprise, which is in its infancy, receiving about $1.25 average pay per day.

About two millions of capital are invested in the business, one-half of which is American.

Two mills for grinding have been put in operation by Americans, and using American-built machinery.

The business is in a healthy and progressive condition and bids fair to become one of the leading industries of Canada, as the supply is virtually inexhaustible.

OTHER MINING.

All mining of iron ores has ceased.

It is claimed that the United States tariff of 75 cents per ton will not admit of its exportation to the States. So close is the handling of iron ores that they will not admit of any taxation whatever.

The Dominion Government, to aid and foster the iron industry in Canada, pays a bounty to the producers of pig-iron of $2 per ton.

No other minerals which warrant the attention of capitalists or operators are found in this district.

SHIPPING.

The tonnage of and coming into this district is composed of small inland steamers, canal-boats, and barges, but the aggregate of this class of tonnage registered and entered in customs at Ottawa will reach 80,000 tons.

Being located 120 miles due west of Montreal, and 52 miles north, inland, from the Saint Lawrence River, its water facilities are canals and the Ottawa River, on which it is situated. There are no means at command to show what proportion of the tonnage arriving at this port of American ownership, but I may safely place it at one-half.

[illegible] here loaded with coal, some light, [illegible] load.

junction with the Rideau River, which has been improved sufficiently to permit of the passage of craft drawing 4 to 5 feet of water. This river is followed to its junction with the Cataraqui River, which has likewise been improved, and thus is provided a water-way to the city of Kingston, on the Saint Lawrence, a distance from Ottawa of 126 miles.

In thus passing from Ottawa to Kingston there are thirty-three locks which ascend and fourteen locks which descend. Total rise, 282 feet; total fall, 164 feet. Depth of water on the sills, 5 feet.

This canal was originally built by the Imperial Government and subsequently made over to the provincial government. It was finished in 1832 at a cost of $3,912,000. It is of a most substantial character, the locks being of dressed stone in large blocks and thoroughly constructed. Its limited capacity in depth, however, is a serious drawback to its adaptability to cheap transportation. A tariff of tolls is charged.

As a further means of outlet by water the Ottawa River has been improved sufficiently to admit of the towing by small steamers of loaded boats down the river to Grenville, a distance of 60 miles, where a system of canals commences, running around the natural obstructions until the Saint Lawrence River is reached at Lachine; thence river to Montreal, with a canal branch also to that city.

RAILROAD FACILITIES.

The conveniences of railroad transportation are through the agency of the Canadian Pacific and Canada Atlantic Railways, both of which have laid their tracks into the heart of the lumber district of Ottawa and have provided first-class accommodations therefor and at all seasons of the year.

It would appear that these two roads were moving one-half the output of lumber, capable as they are, through their connections with the roads in the United States, of placing their freight in any part of the country.

ABANDONED PUBLIC WORKS.

The Canadian Government a few years ago began the improvement of the Ottawa River westward from Ottawa, with the design of opening up a water-way to Lakes Huron, Michigan, and Superior by means of the Ottawa and French Rivers and Lake Nipissing. This undertaking, after being under discussion and furtherance for a considerable period, was finally abandoned after an expenditure of over $1,000,000. According to a report made by a Government engineer of the cost of the completion of this scheme it would have involved about $24,000,000. A canal 6 miles long would be required to surmount the Chaudiere Falls at Ottawa, which are a barrier to continued river navigation above this city (and from which the valuable water-power of the city is derived). Another canal 3 miles in length would be necessary to overcome the Chats Falls. This work, called the Chats Canal, was commenced in 1854 and abandoned in 1856, after an expenditure of $483,000. I feel warranted in saying that this work will never be resumed.

The Culbute Canal, was built in 1876 and intended as a link in thiis continuous inland system to the Great Lakes. This canal was above the Joachims Rapids. It has also been abo[illegible]
after an expendi[illegible]

Railway through the same section, coupled with the enormous amount of Government aid which this railway has received, being in the neighborhood of $100,000,000, it is at least reasonable to predict that this canal project, if not all further ones, has received the seal of its doom for all future time.

AMERICAN BOATS IN CANADIAN WATERS.

Very few Canadian boats can, by reason of excess of size, enter the United States canals. The few that it might be desired to so enter are, however, debarred by law, to which a frequent demur is heard. This of course throws the carrying business to the United States into the hands of the American boatmen, who are allowed the privileges of Canadian waters on an equal footing in every respect with Canadian boats.

Careful inquiry has been made in this respect, even among the boatmen themselves, and I have failed to learn that American boats in inland Canada waters are subjected to any character of charges or taxation not imposed upon Canadian boatmen.

But one complaint has been entered in this office during the season of 1886 by American boatmen, which was in effect as follows:

American boatmen coming into the waters of Canada from Rouse's Point make their first report and entry inward at Saint John's, paying $1 fee therefor. On arrival at Ottawa, their objective point, they are again obliged to make "inward entry" and again pay the $1 fee. On departing they pay $1 fee for "outward entry" at Ottawa, and 25 cents 25 cents for visa of permit at Saint John's. That they should be compelled to enter twice and pay twice they feel to be a grievance. Your consul will look into the matter before the opening of navigation in 1887.

IMPORTS.

The values of the imports at the port of Ottawa for the fiscal years of 1883, 1884, 1885, 1886 are as follows:

1883	$1,562,344
1884	1,514,636
1885	1,530,575
1886	1,579,255

The character of the imports into this district may be approximately learned by the following summary of articles, fully one-half of which articles are the produce of the United States, and this showing and statement will also hold good for the entire Dominion:

Acids.
Agricultural implements.
Ale, beer, and porter.
Animals.
Books, pamphlets, &c.
Brass, and manufactures of.
Breadstuffs, viz: Grain of all kinds, flour and meal, rice, and all other bread-

Fancy goods.
Fish.
Fruit, dried.
Fruit, green, &c.
Furs.
Glass and glassware.
Gunpowder and explosive substances.
Hats, caps, and bonnets.
Hops.
[illegible] and steel, and manufactures of.
[illegible] and manufactures

Musical instruments.
Oils, kerosene, refined petroleum, &c.
Oils, all other, n. e. s.
Paints and colors.
Paper, and manufactures of.
Perfumery, &c.
Provisions, viz: Bacon, hams, shoulders, sides, beef, pork, mutton, butter, cheese, lard, &c.
Salt, coarse (not imported from Great Britain or British possessions or for Gulf fisheries), and all fine salt.
Seeds.
Silk, manufactures of.
Soap of all kinds.
Spices, ground and unground.
Starch.
Spirits of all kinds.
Wines, other than sparkling; wines, sparkling.
Sugar, above No. 14, D. S.; sugar, equal to No. 9, and not above No. 14, D. S.; sugar, below No. 9, D. S.; sirups, cane juice, &c.; melado, &c.; glucose and sirups; molasses.
Tea from United States.
Tobacco and cigars.
Wood, and manufactures of.
Woolen manufactures.
Wool, Class 1, viz: Leicester, Cotswold, Lincolnshire Down combing wools, or wools known as luster wools, and other like combing wools, such as are grown in Canada.

EXPORTS TO THE UNITED STATES

The value of the exports (principally lumber) for the fiscal years 1883, 1884, 1885, and 1886, as shown by Canadian statistics:

1883	$2,444,723
1884	2,536,921
1885	2,628,729
1886	2,099,897

Value of the exports to the United States for the same period by the records of this office for the fiscal years 1883, 1884, and 1885:

1883	$2,470,287
1884	2,895,173
1885	2,309,419
June 30, 1886	2,225,710

Statement showing the declared value of exports from the consular district of Ottawa to the United States during the four quarters of calendar year ending December 31, 1886.

Articles.	Quarters ending—				Total.
	Mar. 31.	June 30.	Sep. 30.	Dec. 31.	
Breeding animals	$5,335 50				$5,335 50
Box shooks	10,764 28	$9,452 34	$11,506 99	$9,692 63	41,416 24
Barley and buckwheat	321 00	1,205 62		4,061 71	5,588 33
Bones and glue stock	921 00			200 00	1,121 00
Butter				51 20	51 00
Doors and moldings	600 00	1,517 50	1,438 95		3,556 45
Eggs		74 97	502 79	178 36	756 12
Fence posts	215 85	145 33	29 10	571 29	961 57
Furs, manufactured				336 50	336 50
Gold sweepings	800 00				800 00
Horses	1,260 00	975 00	115 00	520 00	2,870 00
Hay	726 42				726 42
Hides and skins (green)	1,618 90	1,128 75	487 23	2,899 08	6,133 96
Hemlock bark		88 00		2,050 00	12,138 00
Sawn lumber	217,428 98	713,655 97	920,834 20	645,743 66	2,497,662 81
Sawn lath	3,228 88	6,403 96	16,699 63	10,422 38	36,754 85
Lambs				13,804 17	13,804 17
Mica				303 80	303 80
Miscellaneous	2,130 20	932 06	3,369 60	2,767 12	9,198 98
Match blocks		8,478 83	3,718 68	1,060 88	13,258 39
Phosphate (ground)		1,105 94	1,335 20	2,619 83	5,061 07
Paper pulp (wood)			1,463 20	2,070 00	3,533 20
Pickets	4,328 99	7,443 21	8,577 14	6,752 82	27,102 16
Poles (telegraph)	148 35	1,837 50	235 00		2,220 85
Poultry					
Railway ties					
Shingles					
Settlers' effects					

The discrepancies between the Canadian statistics and the records of this office for the years 1883 and 1884 are only explainable on the hypothesis that shippers have neglected to take out the necessary "outward entry" as required by the customs department.

It is admitted that the department has been lax in its duty in this respect in the past, and to remedy the evil on the part of shippers a fine is now imposed upon the shipper of $200 and upon the carrier of $400 for neglect of this provision of the law.

In 1885 the statement shows the excess of $319,000 in favor of the Canadian statistics, which is unquestionably accounted for by the sum of the foreign shipments other than to the United States and which would not appear in the records of the United States consulate.

A system of monthly comparisons of the records of the customs department with the records of this office is proving of benefit to both parties, as showing to each who are the shippers that are derelict in their duties.

It would superficially appear that the entire exports from this port were to the United States, but owing to the location being above and away from the maritime port, all its foreign exports must of necessity go to such ports for embarkation, hence the values of such shipments become a part of the statistics of those other ports, as it is there the outward entry is usually made in customs, from which the statistics are made up.

Five millions of dollars, I am informed, may therefore rightly be added to the exports of Ottawa, decreasing Montreal and Quebec in a corresponding degree.

REMARKS.

Statistics, as a rule, are uninteresting, but should always be reliable, lacking which element they become valueless.

The export trade of Canada is pregnant with interest to one who cares to look below the surface. And the import trade is susceptible of being made a study of interest and profit by the commercial people of the United States, and I am promising myself the pleasure of making this a subject for a series of consular commercial reports in the near future, as time may admit.

Taking the intimated "glance below the surface" at the past and present exports of Canada, I append a statement of the total exports from 1873 down to 1885, which are the basis of the suggestions that accompany them, and which, though legitimately forming no part of an under consul's annual report, may not prove wholly valueless or uninteresting.

Retrospect of Canadian exports.

Year.	Amount.	Year.	Amount.
1873	$89,789,922	1880	$87,911,458
1874	89,351,928	1881	98,290,823
1875	77,886,979	1882	102,137,203
[illegible]	[illegible]	[illegible]	98,385,804
[illegible]	[illegible]	[illegible]	91,406,496

Notwithstanding the population has greatly increased (not less than one-quarter), and that during the above period Manitoba and the North-west Territories have been added to the producing and exporting area, Canada can hardly say that she has held good her position in her efforts for trade and commerce with the outer world.

Again, her exports to Great Britain in the following years show evidence of a loss of trade with the mother country:

1874	$45,003,882
1878	45,941,539
1885	41,877,705

The Canadian imports from Great Britain for the years 1873 and 1885, when contrasted), surely have a depth of meaning, and which I believe is evidence of a growing independence, through its own ability to supply its individual necessities. The amount of its imports for the years named is as follows:

1873	$68,522,776
1885	41,466,777

The value of Canada's imports from the United States in the same years also has an interesting aspect:

1873	$47,735,678
1885	47,151,210

The above exhibit would indicate a loss of 40 per cent. of Great Britain's commercial trade with Canada in the space of thirteen years, while in the same period the loss to the United States is merely nominal.

In these exhibits are shown only the value of merchandise entered for consumption.

It is certain that Canada, under her present protection policy, has through her manufactures, which are constantly and rapidly increasing, become to a degree independent of other countries or people in the matter of many very important classes of production, but it is also certain that the preferences of a very large class of her people and merchants are with the Americans and for goods of American manufacture, which preference is constantly augmenting, and needs only to be correspondingly fostered.

Still another point for reflection is very observable in the great difference in duties paid upon imports from Great Britain and those from the United States.

As shown, Canada imported from Great Britain in 1885 $41,406,777, paying duties thereon $7,617,249. In the same period it imported from the United States $47,251,201, paying duties thereon $6,636,405—nearly $6,000,000 greater value and $1,000,000 less duties.

As the tariff of customs duties is the same for all, no matter whence the merchandise comes, this indubitably shows us that the classes of merchandise covered by the "free list" has in the far greater degree come from the United States.

A very popular belief is prevalent with a large class of American producers that they cannot compete successfully in Canada with Great Britain, under the supposition that Great Britain can place her productions in Canada free of duty, while the tariff rates must be paid on the American importations.

POPULATION, ETC., OF OTTAWA.

The city of Ottawa contains about 35,000 inhabitants. The suburbs of the city, covering several enterprising villages, contain about 20,000. The district may be placed at 150,000.

The city is quite cosmopolitan in its character. The fixed population may be said to be half French and half English speaking.

Ottawa being the seat of government of the Dominion, and comparatively in its infancy, a few general statistics may not be uninteresting.

Ottawa City was created January 1, 1855, and was selected by Her Majesty as the seat of the Canadian government December 31, 1857. The department buildings were commenced in 1863.

The first session of the legislature of Canada held in Ottawa was commenced on the 8th of June, 1866. During this session confederation was adopted, comprising Ontario, Quebec, Nova Scotia, and New Brunswick.

The amount expended by the Government on the parliamentary and departmental buildings up to June 30, 1885, was $4,205,461, for construction and $1,421,813 for repairs, showing, from the time of their completion, only nineteen years, an expenditure for repairs equal to one-third their original cost.

This is a very remarkable showing when it is considered that all the erections are built of stone, and apparently in the most substantial manner.

The annual expenditure now for repairs and maintenance of buildings and grounds, &c., is about $120,000.

One departmental building is now in course of erection, supplemental to the above, the cost of which at completion is estimated at $550,000.

INCREASE OF POPULATION AND VALUATION.

The increase of its population and valuation has been continuous and healthy, but in no way phenomenal.

The following table will show the population, assessment, and rate of tax for the years named, the assessment being on the basis of full value:

Years.	Population.	Assessment.	Rate.	Years.	Population.	Assessment.	Rate.
1871	.....	$5,970,479	$1 53	1879	23,789	$11,053,437	$1 91
1872	.....	7,377,184	1 51	1880	24,025	10,274,735	1 92½
1873	.....	8,958,708	1 76	1881	25,623	10,393,275	1 90
1874	.....	9,670,720	1 90	1882	26,228	10,628,220	1 92¾
1875	.....	11,584,795	1 81	1883	27,645	10,768,492	1 94
1876	.....	11,713,470	1 77	1884	30,791	11,105,025	1 97¾
1877	.....	13,168,570	1 95	1885	32,857	11,545,735	1 93½
1878	.....	12,519,995	1 92½	1886	34,750	12,750,000	2 13½

registered returns of its population made, but

apparent.

the city's indebtedness, and which gives an annual income of $122,000 and is gradually increasing. In addition to its direct income from this source the city has the benefit of the system for fire purposes (under a pressure of 100 to 110), which benefit alone, for a wooden-built city, is incalculable, as also an absolute requisite.

THE PUBLIC DEBT.

The city debt stands at $2,400,000.

ASSETS OF CITY.

City water-works	$1,500,000
Credit of sinking fund	300,000
Real estate	327,000
Personal property	25,000
Total	2,152,000

It is believed that the water-works would sell for full $2,000,000.

PRICES OF FOOD AND GENERAL LIVING.

The market prices for those necessaries which enter into the daily wants of every community are not subject to violent fluctuations, but are controlled by the supply thereof.

The principal source of supply comes from the market gardeners and small farmers, who, for many miles around the adjacent country, cater to the city wants on the limited arable sections which they may possess. The root crops the present season are sufficient for the wants of the people except in potatoes, and with this exception no notable change exists in prices.

Meats are of home production and raising to a large extent. The grass is excellent and abundant, which, with the area of hill and bush to roam and browse, gives an excellent opportunity for raising stock at a minimum of cost.

It will be observed that the prices of vegetables and meats, which will be quoted, are quite reasonable; indeed, it is only in the line of these articles that prices and cost of living in this city bear any proportion to the rates of wages or ordinary incomes.

Without particularizing, I may safely assert that I know of nothing outside of food which, in my judgment, does not carry higher prices and values than in New York City, or throughout New York State.

There need be no fear of smuggling into the United States of any ordinary merchandise purchased in Canada if Ottawa prices prevail throughout the Dominion, as in most articles, such as furs, clothing, boots and shoes, cottons, print goods, &c., the retail prices of these articles are fully 25 per cent. above those prevailing in the principal markets of the United States, and in very many instances 50 per cent.

In butter and cheese this district is far behind its real ability to produce, and for a really good article an excellent price is obtained, a fine quality of butter selling for 25 cents, the bulk of the production being brought from other parts of the province. During the winter of 1884–'85 butter of good table

Average retail prices—groceries, meats, &c.

Articles.	Average price.	Articles.	Average price.
Bread.....per loaf..	$0 12	Fresh fish.....per lb..	$0 10
Tallow candles.....per lb..	08	Petroleum oil:	
Butter:		American.....per gal..	35
Salt.....per lb..	$0 16 to 22	Canadian.....do....	25
Fresh.....do....	20 to 25	Coffee:	
Cheese.....do....	15	Ground.....per lb..	35
Eggs.....per doz..	15 to 20	Mixed.....do....	$0 15 to 20
Flour.....per 100 lbs..	2 50 to 3 00	Beef.....do....	12½
Buckwheat.....do....	2 50	Mutton and veal.....do....	10
Corn meal.....do....	3 50	Pork and venison.....do....	12½
Oat meal.....do....	3 50	Bacon.....do....	12½
Rice.....per lb..	04	Hams.....do....	15
Sugar:		Dressed chickens.....do....	08
Brown.....per lb..	05½	Dressed turkeys.....do....	12½
Granulated.....do....	06¾	Dressed geese.....do....	08
White.....do....	07½	Dressed ducks.....do....	12½
Molasses.....per gal..	33	Beef.....do....	04½
Bar soap.....per lb..	06	Mutton, lamb.....do....	04
Salt, table.....do....	02	Veal.....do....	04
Teas, average.....do....	45	Cord wood:	
Potatoes.....per bush..	50	Hard.....per cord..	4 50
Beets.....do....	40	Soft.....do....	3 50
Turnips.....do....	40	Anthracite coals.....per ton..	5 50 to 7 00
Cabbage.....each..	05	Timothy hay.....do....	12 00
Onions:		Clover hay.....do....	10 00
White.....per bush..	1 00	Wheat and rye straw.....do....	6 00
Red.....do....	06	Winter wheat.....per bush..	80
Silk.....per qt..	04	Oats.....do....	30
Salt cod.....per lb..		Buckwheat.....do....	40

LABOR.

No great variety of mechanical labor is employed in this district, but for such as is required the supply has been fully equal to the demand, with no apparent surplus, and there has been during the year no friction or disturbance in the labor market.

The rates paid for mechanical labor are somewhat less than in the cities of equal size in the United States, ordinary day labor, unskilled, being the exception.

Average rates of wage-labor.

Occupation.	Wages.	Occupation.	Wages.
Female house servants, per month	$6 00 to 12 00	Gardeners, per day	$1 25
Male house servants, per month	15 00 to 18 00	Female cooks, per month	$8 00 to 12 00
Coachmen, per month	22 00	Laundresses, per month	6 00 to 12 00
Masons, per day	2 50	General laborers, per day	1 25
Bricklayers, per day	2 50	Miners in phosphates only, per day	75 to 1 25
Carpenters and cabinet-makers, per day	1 50 to 2 50	Mill hands, per day	1 00 to 1 50
Blacksmiths, per day	2 00 to 2 25	Saddlers and leather workers, per day	1 50 to 2 50
Lumbermen, and board, per month	15 00 to 25 00	Boot and shoemakers and tailors, mostly by the piece.	
Lumbermen, per day	1 25 to 1 50		
Wheelwrights, per day	1 00 to 1 50		
Gardeners, with board, per month	16 00 to 20 00		

PEOPLE.

The tastes and habits of the people, however, lead them to adapt themselves to the circumstances which surround them. As a rule the lower classes are lacking in that refined taste and judgment in dress (both in the selection of colors and material and in their harmonizing combinations) which characterize the masses in the United States, nor do they exhibit that peculiar knack and tact of turning (in dress and other little things) their little nothings into tasty, natty, stylish something, like their more enterprising neighbors.

IMMIGRATION.

The immigration into this district of foreigners as registered by the commissioner of immigration for Ottawa is 1,297, comprising the following:

Nationalities.	Number.	Nationalities.	Number.
English	727	French	11
Scotch	30	Finnish	12
Irish	201	Hungarian	25
German	234		
Scandinavian	57	Total	1,297

The total capital reported as being possessed by these immigrants is $33,800.

Temporary relief was granted by the authorities to 223 of this number, viz, to 148 men and 31 women and 44 children.

Many of the immigrants coming into Canada very soon find their way into the United States.

It is a well-known fact that the Canadian authorities, under the auspices of the agricultural bureau, maintain a system of agencies in the Northern and Eastern States for the purpose of inducing emigration to Canada.

EMIGRATION.

The records of this consulate for 1885 and 1886 will be given, and respecting which I can say, from the personal conversations had with many of them individually as to the reasons of their leaving the country, that I found them in a frame of mind sour and bitter, engendered by increased taxation and cost of living. The majority have gone into the west, and were largely of the farmer class of the better sort, who had means to buy farms and who were desirable settlers.

Many of the emigrants sell all their effects here and go clean-handed, appearing to understand that they can as cheaply replace when they determine the actual spot of their location.

Emigrants from Ottawa to the United States, 1885 and 1886: Number of persons, 198; value of effects, $22,774.

THOS. W. HOTCHKISS,
Commercial Agent.

MEXICO.

GUAYMAS.

Report of Consul Willard.

TRADE.

The trade returns show an increase in the commercial transactions over that of the preceding year. Business operations continued more or less on the same basis during the first two quarters, but the last two quarters of the year an increased vitality is apparent.

The causes which operated against the commercial prosperity of this district in 1885 have now in the past six months been greatly modified; there has been no return of the "scourge" of yellow fever, and the Apache Indian raids from Arizona have entirely ceased. The Iaqui Indian war still continues, but will in a short time be concluded, in a manner satisfactory and favorable to the industrial interests of Sonora.

IMPORTS.

As mentioned in my report of 1885, American manufactured goods now occupy the position held by those of Europe fifteen years ago. By the courtesy of the custom-house collector at this port and Nogales (on the American frontier) I have obtained most of the data contained in the tables of imports and exports, which are approximately correct.

The imports from the United States and Europe have not varied as to the character and class of goods from that of former years:

From—	Imports in 1886.		
	By sea through Guaymas.	By rail through Nogales.	Total.
United States	$447,129 89	$427,092 61	$874,222 50
Europe	132,766 06	213,546 30	346,312 36
Total	----------	----------	1,220,534 86

The district of Alamos, in the southern part of this consular district, is supplied principally from the port of Mazatlan, and the amount can be estimated, the same as last year, at $200,000. Of this amount $50,000 can be classed as goods of American manufacture and $150,000 from Europe.

The contraband traffic across the border of Arizona into Sonora has decreased during the year, Apache Indian raids making this business dangerous, and, as the Mexican Government is exercising more vigilance, this year it is calculated it will not exceed $75,000. A recapitulation of the imports show as follows:

From United States by sea and through Nogales by rail	$874,222 50
From United States by sea and through Nogales, via Alamos	50,000 00
From United States via Arizona, clandestinely	75,000 00
	$999,222 50

EXPORTS.

Exports from this consular district are sent almost exclusively to the United States by railroad and steamer. Silver ores have been exported in considerable quantities during the year over the Sonora Railroad and connections to Denver, in the United States (to the smelting works at said place), and from Alamos by sailing vessels to Mazatlan. The aggregate tons shipped of silver ore will not exceed 5,000 tons, valued, approximately, at $400,000. The amount of coined silver and bullion shipped from Alamos to Mazatlan for reshipment to the United States can be estimated at $300,000. Of coined dollars and bullion, cattle and fruits, taken across the border of Arizona frontier clandestinely no official data can be obtained. The number of oranges exported to the United States from this consular district by rail and other conveyances is estimated at 8,000 boxes of 150 to 250 oranges per box. Those by rail are mostly sent to Denver and Chicago. From custom-house and consular records:

Exports to the United States through Guaymas	$557,942 09
Exports to the United States through Guaymas by rail via Nogales	420,723 96
Exports to the United States through Alamos by Mazatlan	300,000 00
Export of ores from Alamos district via Mazatlan and by rail through Nogales	400,000 00
Total exports to the United States in 1886	1,678,666 05
Total exports to the United States in 1885	1,018,304 82
Difference over 1885, increase	660,361 23

Exports to Europe from this consular district are made indirectly through the United States.

NAVIGATION.

The following amount of tonnage is taken from the records of the captain of port at Guaymas and consular records. (The tonnage as mentioned is according to Mexican measurement, and gives an increase in tons over the measurement of the United States and England.) The total tonnage of vessels of all nationalities entering and departing from Guaymas during the year 1886 amounted to 48,270 tons; during the year 1885 amounted to 37,517 tons, showing an increase of tonnage in 1886, 10,753 tons. This is accounted for as follows: Several European vessels chartered to carry phosphates from San Pedro Island in the Gulf of California to Hamburg touched at Guaymas in ballast for orders and supplies and are entered in the captain of port's office. Among the arrivals and departures of vessels the Mexican Phosphate Company during the year had a steamer under the Mexican flag to carry water and supplies to their island for the workmen, and the arrivals and departures of the said steamer are also entered at the captain of port's office.

The French company working copper mines in Lower California have a steamer under the French flag, by special contract with the Mexican Government, and the arrivals and departures of this steamer are also entered at the captain of port's office. The foregoing explains the apparent increase of the merchant tonnage at this port. According to the record at the captain of port's office the following tonnage is given:

There have been during the past year no important changes regarding the laws on imports, exports, and navigation. Although, as will be seen by the foregoing tables, that the consumption of American manufactories' goods are much greater than all others, yet there are but three American mercantile houses in this consular district whose sales amount in the aggregate to $150,000 per annum of imported American goods, the foreign commerce being in the hands of Mexican, German, and Spanish houses. There is no English importing house established in this consular district. American residents are almost exclusively engaged in mines and mining.

DOMESTIC TRADE.

Domestic trade between the port of Guaymas and the coasting ports as far south as Manzanillo remains more or less the same as mentioned in my last year's report. The articles exported from Guaymas to the Mexican ports south consist of flour, baskets, straw hats, mats, beans, and peas. Articles received at Guaymas from the Mexican coast are dried fruits, blankets, tobacco, sugar, soap, lard, rice, chocolate, and mescal, and can be estimated in values of the products at $500,000. The American steamer City of Topeka, engaged in the coast trade between this port and coast ports as far south as Manzanillo, was withdrawn from the service and ordered to San Francisco, the trade and traffic not being sufficient to warrant further continuance of said steamer in coast trade. The Mexican coast steamer Alejandro, of about 600 tons burden, was placed on this route, and is making semi-monthly voyages to the ports touched at by the City of Topeka. A small Mexican steamer, Porfirio Diaz, has also been placed on the route, making regular voyages to Guaymas from Mexican ports south. This steamer is less than 100 tons burden. The Mexican steamer Altata occasionally touches at Guaymas from Mazatlan. Should there be no return of the yellow fever in the coming year there is every reason to believe that the coasting trade and the traffic will increase. Regarding interstate and municipal duties (*derechos de alcabala*), this relic of the past, which has been an annoyance to trade, has now been abolished by law, and gives great satisfaction to the merchants on the coast.

STEAMERS AND SAILING VESSELS.

The California and Mexican Steamship Line's steamer Newbern, 677 tons burden, still continues making regular monthly voyages from San Francisco to Guaymas, touching, going and returning, at Todos Santos, Magdalena Bay, Cape San Lucas, Mazatlan, and La Paz. This steamer is under contract with the Mexican Government to carry the mails and receives the subsidy for this service of $1,500 for round voyage. The Mexican steamer Alejandro, before mentioned, engaged in coasting trade, carrying mails by contract of the Government, receives a subsidy of $1,200 monthly. The small steamers Altata and Porfirio Diaz also carry the mails, but receive no subsidies from the Government. The ... steamer, owned by the French Mining (copper) Company in ... M. Romero Rubio, owned by the Mex- ... carrying supplies

sular district, and phosphate from San Pedro Island, in the Gulf of California. The Mexican sailing vessels on the coast are engaged exclusively in the coasting trade, none making voyages to foreign ports.

INTERNAL IMPROVEMENTS.

Nothing to note, remaining the same as mentioned in my last year's report. The Sonora Railroad which, as is known, connects this port with the United States at Nogales, Ariz., and connecting with the Arizona and New Mexico Railroad and Southern Pacific Railroad at Benson, has with few interruptions run daily trains the whole year. Report of the gross and net earnings of this road shows an increase over that of 1885. I am unable to furnish the exact data, as the same have not yet been published. The projected railroads from this port to the Sonora coal-fields of "Los Bronces" and "La Barranca," distant 120 miles, approximately, and that of Port Lobos, in the Gulf of California, to extend northerly to the Arizona frontier, 90 miles in length, for which franchises or concessions have been granted by the Mexican Govenment, and declared forfeited for non-fulfillment of conditions, have not been invalidated by the holders of the same, and there is at this time but little hopes that they will be.

TELEGRAPH LINES.

As mentioned in my report of last year, Guaymas is in direct communication with the United States by the telegraph line of the Sonora Railway. The Government line mentioned in my last year's report as uncompleted between this port and Alamos, distance 240 miles (to connect with the Mexican Government lines to the city of Mexico over national territory), has been completed, and Sonora now enjoys direct telegraphic communication with the national capital and all other States of the Mexican Republic.

MINING INTERESTS.

An increased interest has been manifested during the past six months regarding the mines of gold and silver in Sonora. Investments are now being made by English capitalists in the purchase of mines in different parts of this consular district (heretofore but few companies have been organized in England to work Sonora mines). In 1884 the Trinidad mines were purchased by an English company in the sum of $1,500,000. In November of the present year was purchased by an English company a mining property near the borders of Sonora, in Chihuahua, for the sum of $800,000, and in Sonora two more mines were purchased in the sum of $175,000, and in the present month the Mulatos gold mines, in this State, were contracted by an English company in the sum of $1,000,000. No purchases have been reported during the year of any mining property of importance in Sonora by American capitalists.

COPPER MINES.

The copper mines near the American frontier in Sonora, owned by American citizens, have an abundance of ores with a percentage of silver combined with the copper, and are now being worked, but not on a large scale. The copper mines owned by

amount of American capital invested in the mines and lands of this consular district will equal one-half of the foreign capital invested in the State.

The gross products of the mines is difficult to obtain or get an approximately correct estimate. It can, I think, be safely placed at 50 per cent. more than the amount of the exports.

IRON, LEAD, AND ANTIMONY.

There has been no effort made to develop the iron, lead, and antimony mines in Sonora.

COAL-FIELDS.

The coal-fields of Sonora, mentioned in former reports, still await systematic development; the partial developments all tend to confirm their value as an element of great commercial importance to Sonora.

MINING LEGISLATION.

A law has been presented to the national Mexican Congress in the last quarter of this year, and is now under discussion, having for its object the fomenting of the mining interest of the Republic and other industries, and was presented as a partial remedy for the depreciation of silver. Regarding mines, this law provides that for the term of fifty years coal, iron, and quicksilver mines of every description shall be free from all taxes and duties, and all products produced by them. No fees shall be collected for denouncements and possession necessary to acquisition of mines and mining properties and reduction works, nor on the organization of mining companies, or on titles, or on shares issued by them. The President of Mexico is authorized by this law for the coming ten years to form contracts, granting special privileges and ample concessions for mines and mining lands (not detrimental to the interests of a third party) to such companies who will guarantee the inversion of capital corresponding to the extent of the lands or zone granted for their working, the nature of the ores, and the circumstances of the locality, &c. The minimum capital to be employed by such companies is to be not less than $200,000. There is every probability that this law will pass Congress and become a general law of the Republic in the coming year.

POPULATION AND COLONIZATION.

There has been no material increase in the population of this district since my last report. The raids of the Apache Indians in the north of the district having now ceased it is expected that during the coming year an increase of population will follow in those districts now nearly abandoned. The Iaqui war in the southern part of the district, although not yet finished, will no doubt be concluded during the year, and that portion of the State which contains the best agricultural land on the coast will be open to colonists.

[illegible] in the last six years have made several coloni-

under the leadership of Col. A. K. Owen, the projector of the enterprise. I am informed that some 4,000 colonists from the United States will be ready to start within the next six months to Topolobampo Harbor, on the shores of which the colony is to be established. This harbor is in the Gulf of California, in the State of Sinaloa, consular district of Mazatlan (and is about 200 miles southeast of Guaymas). At this time the nearest settlement is 15 miles distant, and as I am informed a large tract of land has been secured bordering on the shores of the Gulf, there should be no impediment to locating a site to the satisfaction of the projectors for a model city and colony. This colonization scheme differs in many particulars from others of its class as to the theory and principles on which it is proposed to establish it, and in the concession and franchise given by the Mexican Government no discrimination is made in favor of European colonists, which has generally been the case in the colonization concessions of Mexico granted for this west coast.

The reported influx of the Chinese into this consular district is without any foundation, as the number of Chinamen in Sonora, the same as last year, are estimated at less than 100, and are engaged as a rule in manufacturing shoes and as gardeners and cooks.

SANITARY CONDITION.

The sanitary condition of this consular district during the year has been, comparatively speaking, good until the second quarter of the year, when the smallpox made its appearance among the Indians in the Iaqui Valley, and has spread since then over the southern part of this consular district. The yellow fever did not appear on any part of the coast. The non-visitation of this disease after its appearance for three consecutive years gives hopes that it will not return.

CONCLUDING REMARKS.

The reported purchase by German capitalists of large tracts of land in Sonora has no foundation in fact. The colonization schemes of L. Huller & Co. (German) in connection with certain lands in Sonora and Lower California is based on American capital. No lands have been purchased by English capitalists in Sonora. The Sonora Land Company (an American organization) has acquired a large tract of valuable land along the northern part of Sonora for colonization purposes, and is now engaged in making surveys of said land. The Mexican Phosphate and Sulphur Company (organized in San Francisco) are actively engaged in exporting phosphates (petrified guano) from the islands of the Gulf of California, opposite Guaymas, and have, it is estimated, 50,000 tons of merchantable phosphates on the island of San Pedro, besides other deposits on different islands of the said gulf. The phosphate is exported to Europe in sailing vessels. The soft guano on the islands, which is found in large quantities, although inferior to the phosphates, yet has a commercial value. Shipments of this guano will be made the coming year to California. The outlook for the coming year is more favorable than any year since 1883. The problem so difficult of solution of Apache Indian raids from Arizona, which for

tality in all industrial interests throughout this consular district and a corresponding increase of the commercial relations with this part of Mexico and the United States.

A. WILLARD,
Consul.

UNITED STATES CONSULATE,
Guaymas, December 31, 1886.

Imports at Guaymas, Mexico, for the year ending December 31, 1886.

Articles and whence imported.	Quantity.	Value entered.	Amount of duties.
	Pounds.		
From United States:			
Agricultural and mining implements	3,547,048	$106,298 75	
Drugs and perfumery	45,063	23,282 28	
Dry goods: Cotton, linen, and woolen	80,314	78,980 80	
Groceries	876,408	170,207 41	$329,916 23
Glass and earthen ware	24,763	7,233 63	
Hardware	25.193	10,774 23	
Miscellaneous goods	435,326	50,352 79	
	5,034,115	447,129 89	
Received by sea	----------	427,092 61	
Received by Nogales, not specified	----------	874,222 50	
Total from United States			
From Europe:			
Agricultural and mining implements	20,720	7,163 06	
Drugs and perfumery	80,339	12,382 00	
Dry goods: Cotton, linen, and woolen	97,600	49,683 18	
Groceries	125,021	24,958 61	194,063 83
Glass and earthen ware	26,122	6,664 81	
Hardware	41,436	12,290 90	
Miscellaneous goods	128,313	19,623 56	
	519,551	132,766 06	
Received by sea	----------	213,546 30	
Received by Nogales, not specified	----------	346,312 36	
Total from Europe	----------	1,220,534 86	
Total from United States and Europe			

Exports from Guaymas, Mexico, for the year ending December 31, 1886.

Articles and whither exported.	Quantity.	Value, including costs and charges.
To United States:		
Bullion:		
Silver ..... cars	36	$338,019 50
Gold ..... do	4	37,846 61
Currency ..... cases	2	5,990 00
Dollars, silver ..... sacks	196	143,891 98
Gold coin ..... do	3	6,595 00
Hides:		
Beef ..... pieces	3,952	9,342 00
Sheep ..... pkgs	29	240 00
Plumbago ..... sacks	394	450 00
Phosphate ..... tons	----------	14,000 00
Red pepper (Chiltepin) ..... packs	2	100 00
..... sacks	1	25 00
..... do	142	1,242 00
	106	200 00

PASO DEL NORTE.

Report of Consul Brigham.

GROWING IMPORTANCE OF PASO DEL NORTE.

The location of this consulate on the frontier of Mexico and within a few hours' run, by rail, of many of the leading commercial centers of the Western States, makes it one of the most important in our consular system. While in a foreign country, it is just across the Rio Grande River from El Paso, Tex., one of the most enterprising and progressive cities of the Southwest, which is rapidly pushing its business into the interior of Mexico.

The peculiar location of Paso del Norte as the recognized gate-way into the Republic for the commerce of the United States, since the construction of the Mexican Central Railroad, by American capital, to the city of Mexico, has made it daily a more important distributing point for all the Northern Mexican States. This road, traversing 1,224 miles, through the very heart of the country, brings the commercial centers of the United States into close connection with the business circles of nearly the entire Republic. The facilities offered for travel and freight through this route are attracting what for years past, by slow means of transportation, followed the old Vera Cruz, Matamoros, and Tampico routes.

The rapidly growing business of the consulate is proof sufficient of the energy and enterprise of the American people, who are developing a trade that has been almost dormant until five years ago, when railroad communication made business possible.

Paso del Norte is situated in that portion of the State of Chihuahua lying in the Zona Libre, or Free Zone, which is a portion of the Mexican frontier extending 20 kilometers in width from Matamoros, on the Gulf coast, through the States of Tamaulipas, Coahuila, Chihuahua, Sonora, and Lower California, to the Pacific Ocean, all bordering on the United States. This Zone, as enacted by the Congress of Mexico, exempts the importation of foreign goods from custom duties, and makes this and other ports similarly situated within it free ports within the specified limits, and in it all real estate must be owned by natives or citizens unless by special concession from the national Government.

While the real estate conditions of the Zona Libre are intended solely for the protection of Mexican interests, leases are made by foreigners that are tantamount to purchases, and a few Americans are already acquiring real estate within the Zone by authority from the central Government, which is readily granted.

It will be seen from the accompanying statistics that Paso del Norte has grown in a few years from a frontier city of no commercial importance to be the leading city commercially in the entire Republic as a port of entry and distribution of foreign merchandise and as a point of exports to the United States. Indeed, it should be noted as a fact that it exports annually to the United States values only exceeded by three or four consulates, while it ranks among the first

Its present status and rapidly

The indications are that the exports this year will reach ten millions or more, which is indeed a showing so astonishing that few can fully appreciate the rapid advance.

MINING INTERESTS.

The State of Chihuahua, one of the largest in the Republic, is principally noted for its mines of silver, many of them rich in virgin ore and but partially developed. In late years, I dare say, more American capital has been invested in mining in this State than any other in the Republic. These mines rank among the first in the country, and many of them have been worked with profit under the crudest systems for years. American machinery is gradually being introduced, and the result is the annual output has been greatly increased. The future alone can reveal to what vast dimensions this one industry will extend. It is certainly but in its infancy now, and must rapidly grow, notwithstanding the many impediments in the way of successful pursuit.

CATTLE AND STOCK.

While immense tracts of land are devoted to the raising of cattle, there is a much larger portion of the State that is useless from the great scarcity of water. Pumps and wells are gradually being introduced, principally by Americans, and it is but a matter of time when great bodies of land that heretofore have been left idle will be utilized for grazing purposes.

The introduction of better blooded cattle for breeding purposes is quite extensive, and promises an improvement in their grade throughout the entire section.

The price of steers, yearlings, and cows ranges from $8 to $18, Mexican currency, equal in value to $6 and $13.50, American currency, and large numbers are exported to the United States from this port, both for breeding purposes, on ranches, and for slaughter. Sheep likewise are herded in large numbers, and constitute no small part of the commerce of the country. They range in value from $1 to $2, Mexican currency, equal generally in American currency to 75 cents and $1.50.

AGRICULTURE.

While Chihuahua and the adjoining States are not, strictly speaking, agricultural, owing to the great scarcity of water, yet where irrigation is practicable, as on the Rio Grande and other streams in the interior, splendid results are obtained from the cultivation of the soil. In the lower portion of the State of Chihuahua, thousands of acres are devoted to the cultivation of corn and cotton, both of which grow most satisfactorily; and this generally with the rudest and most superficial ancient customs being pursued. The valley of the Rio [illegible] producing most varied crops, is des-

THE MISSION GRAPE.

The Mission grape, now widely known as the "El Paso grape," is grown here to great perfection, after an acclimation of over two hundred years, and is unexcelled for richness of flavor. It is peculiarly adapted to this latitude, climate, and soil, where the grape is entirely free from blight and diseases of any kind, so destructive to the vineyards in Europe and California. Experienced cultivators of the vine note that all the conditions of the soil are united to produce the grape in the Rio Grande Valley in this vicinity to perfection, whilst the climate, equable, mild, and dry at the grape-flowering season, and when the fruit is maturing, prevents blight and rot. As a table grape it may safely be said it has no superior, and can be produced at no other point to the perfection it has attained here. It has been tried in California and other wine-producing countries with only partial success. It is estimated that one acre with one thousand vines is worth $1,000, and the industry is largely on the increase and will in time rival any of the grape-growing countries in quantities produced. Some ten thousand caskets are annually shipped to the eastern market for table use alone, whilst much wine of superior quality is produced from these grapes. With 1,200 miles closer connection with the Eastern States of our country than California possesses, the advantages in transportation alone are so apparent that in the near future it will rival that great fruit-producing section.

POPULATION.

The population of the ancient city of Paso del Norte (more than three hundred years old) is now estimated at 7,000 souls. Years ago it is estimated that it reached some 20,000, but as trade was gradually diverted to other points in the Republic, when great facilities were then offered, it gradually dwindled down to the present numbers. The great State of Chihuahua has a population of some 250,000 inhabitants, and its capital, of the same name, is a thriving city of 18,000 inhabitants.

In this State there are about 2,500 foreigners, 2,000 of whom are citizens of the United States, resident here, engaged principally in mining, stock raising, and as employés of the Mexican Central Railroad. The remaining foreign population are composed of German, English, and French, who are generally engaged in mercantile pursuit.

The natives are generally descendants of peons, and, while they are not remarkable for intellectual culture, they are a hardy race, of lazy, idle habits, without principle. They are satisfied with little, and the masses live in the most primitive style, and in many instances in squalid poverty. In the interior of the country their condition is worse, where as peons they are held in abject surveillance, and with never-ending debt impending over them, from which there is no escape, they labor for their masters, the owners of herds and haciendas. The wages for such labor in the interior will average 2 rials, equal to 25 cents, per day. The settlement of Americans in the country does not appear to make any marked change in these people. They adhere with great tenacity to their ancient customs and habits, both in a business and social way that are obsolete and belonging to

SANITARY CONDITION.

Of the health of this consular district, it may be said that nature has done all that could be asked. At an altitude of 3,700 feet above the sea level, the pure air is a boon to those suffering with pulmonary affections. Too much cannot be said of this truly delightful climate with the mercury rarely below 20 degrees above zero, and then only for a short time, and with snows which never entirely whiten the ground, and with no damp, chilly days, and no sultry nights in midsummer, it is one of the most equable climates to be found on the continent, and the atmosphere is unsurpassed for dryness and purity, full of electricity; it is wonderfully exhilarating and never malarial. It is the very place for consumptives and those affected with throat and lung troubles, and is fast gaining such notoriety for these and other kindred diseases as will at no distant day make it noted as a sanitarium and health resort. The best accommodations can be had at El Paso, Tex., just across the river, for all who may come as invalids or for comfort and pleasure.

EXPORTS AND IMPORTS.

It is impossible to obtain reliable data as to foreign importations, or a detailed statement of the goods, wares, manufactures, &c., introduced at this port, but the board of trade of El Paso, Tex., has, however, had access to information not obtainable at this office, and has compiled a statement which seems to be reliable.

It will be observed, however, that this table shows only goods cleared at the Mexican custom-house at this place and shipped to the interior by the Mexican Central Railroad, without mention of goods introduced for local consumption by city merchants and others. It will also be seen that the table only gives the number of cars arriving, with an estimated value of the goods introduced, which will likely fall under the correct figures.

There are many difficulties and delays in the introduction of foreign goods at this point, owing to the awkward way in which business is conducted at the Mexican custom-house here. This grows out of the system in vogue under the laws now in force and not from any fault of the present officials or any disposition on their part to impede the commerce of the two countries.

The feature of fines and penalties for slight omissions and inaccuracies in consular papers ought, by all means, to be abolished. They will occur in the hurry and press of business, and the commercial world should not be made to suffer thereby.

J. HARVEY BRIGHAM,
Consul.

UNITED STATES CONSULATE,
Paso del Norte.

Merchandise cleared at the custom-house in Paso del Norte, Mexico, and forwarded by the Mexican Central Railroad Company, excepting coal and railroad material, from the 1st of July, 1885, until the 30th of June, 1886.

Imported by the Mexican Central Railroad	cars..	2,088
Imported by teams, estimated about 10,000 pounds daily, being per year	do...	150
Total	do...	2,238
Or ten trains to a car		23,380

Of which were—

	Cars.
Cotton	273
Machinery and agricultural implements	617
Bluestone	35
Iron	29
Sulphur and soda	13
Wagons and wagon material	22
Powder	12
Beer	33
Wines and liquors	14
Lumber	129
Candles	15
Quicksilver	14
Sugar	25
Cotton seed	7
Salt	75
Oil	273
Live stock	47
Grain and feed	17
Sundries and mixed goods	585
	*2,238

Value of declared exports from the consular district of Paso del Norte, Mexico, to the United States during the quarter ending December 31, 1886.

Articles.	Value.	Articles.	Value.
Carriages	$2,095 00	Precipitate of silver	$32,865 71
Cigars and cigarettes	1,746 42	Saddles	544 00
Cattle	36,360 00	Silk shawls	450 00
Copper	5,000 00	Sheep	112 50
Earthenware	89 00	Silver bullion	345,863 26
Fruit (oranges, bananas, &c.)	3,536 00	Silver ore	803,504 00
Gold bullion	16,332 20	Wool	7,364 11
Gold coin	45,175 00	Wines	232 00
Gold and silver bullion	356,232 36	Wax and rag figures	347 57
Hides and pelts	5,218 68	Woolen hats	250 00
Horses and mules	2,749 00		
Jewelry	692 29	Total	3,340,257 02
Mexican beans	630 32	Total exports for three quarters ending September, 30, 1886	5,364,057 51
Mexican sugar	302 00		
Machinery	436 80	Total for year ending December 31, 1886	8,704,314 53
Miscellaneous	4,805 00		
Mexican silver dollars	1,666,441 00		
Printed books	883 00		

*Representing a value of $6,745,500, on which duties have been paid amounting to $1,539,201.93.

CENTRAL AMERICA.

HONDURAS.

Report of Consul Herring.

INTERNAL IMPROVEMENT.

The expenses and excitement of the insurrection and rumors of war have retarded the advance of internal improvement, so that nothing worthy of notice has been done in this regard, except that the Government has built a large and commodious penitentiary in this city and a wagon-road from the Pacific coast near Amapala to Tegucigalpa, and from Tegucigalpa to Yuscaran, a distance in all of 160 miles. This is the only road of the country leading into the interior, and has cost the Government $900 per mile, and is now, this soon after its completion, so ruined by the floods of the late rainy season as to be almost if not quite impassable with wheeled vehicles.

LIVE STOCK.

Raising stock may be a slower business and less alluring than mining, but it is sure and safe, and certain of steadily increasing profits. A former lengthy report confined to this subject, during last year, relieves The necessity for a very extensive notice under this important head. any ruling prices for the year have been: For cows, from $7 to $10; steers, average, $9; two years' old, $3 to $4; three years' old, $4 to $6; hogs, $3 to $6; goats, $1 to $2; cargo or pack animals (mules or horses), from $35 to $50; saddle mules, from $60 to $150; saddle horses, from $20 to $60; mares, from $6 to $10. Mares are not used except for breeding purposes. Sheep are rarely seen. Besides their greater liability to attack and destruction by dogs and wild animals, the Honduraneans have about the same prejudice against the sheep for meat as some of our people have against the goat, and as there is no factory or market for wool, the sheep cuts no figure in the live-stock industry. There is no improved stock in the country. The animals are all small. The mule is more valuable than the horse even for the saddle. He is more sure of foot for the mountain trails. He skips over and around the mountains and along the rims or ledges of precipices with the agility and safety of a goat, when often a stumble or misstep would throw him and rider hundreds of feet down steep declivities to certain death. He is seldom shod and as seldom needs it, his hoofs being remarkably tough by nature. His mane is always sheared, but his tail never. He is a tough little animal, of most wonderful endurance, and can live and thrive on an allowance of food that would starve our larger animals. He is capable of the longest journeys [illegible] going 15 to 20 leagues or 45 to 60 miles a day. He is

You may travel from one end of the Republic to the other without seeing so much as a plow. You will find a wretched substitute in the shape of a straight one-handled piece of timber, with a beam to fasten the team to and at the foot a strip of pointed iron, which turns the soil both ways, and which is about the size and shape of an ordinary hand.

For an ax they have a light, sharp-edged iron implement, with a round hole through which the handle is fastened.

They have also a machete, which is a knife varying from 18 to 24 inches in length and about 2 inches in width, with the blade tapering to a point.

If you will imagine the crudest wagon your mind can conceive, with wheels of round bandless wooden blocks, having holes in the center for the axles, you will have the ordinary wagon of Honduras. In some towns, however, they have a few good carts, but they don't know how to use them. They are run without being greased, which is not only a cruelty to the animals drawing them, making their loads heavier, but they go through the streets with a deafening noise that drowns the voice and makes conversation impossible until they pass. It is a terrible rasping, screeching noise that would put some people's teeth on edge and render the more nervous almost frantic, and on any street in any city of the United States would be abated as a nuisance.

Our kind of ox-yoke and bows are not used here. In place of them is used a piece of timber crossing from the forehead of one ox to that of the other and fastened around the horns or forehead with a strip of raw-hide, so that the load is pulled by the head instead of from the shoulders or neck. Logs are hauled dragging on the ground.

Perhaps the first American wagon that was ever here and run in the proper trim and yoked to oxen as it should be was one belonging to an American mining company, and that passed this office some time ago. It was amusing to watch the natives as they would stand on the streets and corners and the storekeepers as they rushed from behind their counters to look at this wagon, as if it was a "real show" and a great curiosity.

The machete is the most prized and the most used of any implement. The native countryman always carries it with him wherever, whenever, and for whatever he goes. It is his weapon of defense against man and beast. It cuts his way through the dense jungles. It cuts the grass and chops up the green corn for his horse. With it he kills and cuts up his hogs and his beef, and with it he cuts his meat and his bread. It is his best and most indispensable farming implement. The so-called plow is only sometimes used, but the machete always. With it he clears the briers, the brush, and the long grass from his corn-patch, and with a sharp stick, or this same machete, he punches holes in the ground at irregular distances, drops in his corn, covers it with his heel, and retires to the shade for kind nature to do the rest, or rather for nature to do the work and himself to *rest*. The corn is not planted in cross-rows at regular distances, or in straight lines, so it can be afterwards worked, because it is not intended to work it.

With this kind of farming only nubbins are generally produced, but the natural conditions are so favorable that large corn is sometimes found.

from dampened, pulverized grains of corn. There are a few coffee plantations, but they have proven unprofitable, perhaps for want of proper attention. Enough sugar is made for home consumption, but none for export. Fruits are grown extensively for exportation on the north coast, but not in this district. There is no bureau of agriculture, and there are no statistics to show the amount or value of farm products.

The price of Government land is from $20 to $100 per "caballeria," equal to 33⅓ acres.

WAGES AND COST OF LIVING.

There is no established rate of wages for labor, and, without attempting with present limited information to give a correct representation with comparative cost of living, suffice it to say that the rate of wages is far below the cost of comfortable living. Yet there is no conflict here between capital and labor; no great labor problem to agitate the minds of the people, frighten capitalists, and disturb the dreams of the statesmen. The "irrepressible conflict" is only read of at a distance. Agrarianism and socialism or communism are little thought of, and much less feared. It is not a congenial home for "labor strikes." In fact, "strikers" are not tolerated. A strike was attempted once, under a preceding administration, by the printers in a Government printing house, not for higher wages either, but for contract wages, withheld on account of a depleted treasury. The poor printers were hunted and arrested by soldiers or policemen, under orders from the government authorities, given a sound flogging, and sent back to their work. Rather a summary way to solve the "great problem," yet it worked like a charm in this Republic.

NEWSPAPERS.

There are three newspapers published in this city, as follows: *La Nacion* (semiweekly), *La Republica* (weekly), *La Gaceta* (weekly). These are the only newspapers or periodicals of any kind published in this Republic, except, perhaps, one other small newspaper, said to have recently commenced at Truxillo. Every one of them is of very diminutive size, *i. e.*, cannot contain much reading matter, and this is a reason for the Government proceedings being so slowly published.

OPENINGS FOR NEW ENTERPRISES.

There are no railroads, grist-mills, cotton-gins, water-works, gas-works electric lights, photograph galleries, factories, banks, or banking-houses and—no American merchants.

COMMERCIAL RELATIONS.

Meal is not used, but corn is converted into "tortillas" as before stated. Flour is shipped from the United States. Nearly all other merchandise comes from England, France, and Germany, because, briefly, from these countries the freights are cheaper, the goods are [illegible] to suit this market, the packing is better [illegible] in rainy seasons and [illegible]

other consulates in Central America, though it would apply equally as truthful here.

MINES AND MINING.

Notwithstanding the insurrection and rumors of war, the exciting hunt for gold and silver has continued with a lively interest, and mines and mining are more talked about than any other branch of industry.

Nearly all the mines organized or reorganized, under the improved system of mining, are only in a preparatory stage, and therefore not much bullion has been produced and no dividends declared. The amount and value of bullion produced are not known. The Government derives no revenue from this source and no record is kept.

It is a notable fact that all the mines of Honduras that have attracted considerable public attention have been or are being taken charge of and controlled by Americans or American capital. The only exception showing investment of foreign capital is a mine belonging to a French company near San Pedro, and which is managed by the only French consul accredited to this Government.

Nearly all the mining capital of Honduras being held by citizens of the United States, it would be interesting to know the exact amount, but it has not been ascertained. It rises, however, away up in the millions, and has grown rapidly within the last two years, and still continues to grow.

Following is a list or mention of the principal mines of this consular district, which have been organized or were commenced to be organized during last year:

Hondo Company of Chicago.—Has placer mines in the department of Olancho; no bullion yet produced, but $10,000 has been wasted in opening up tunnels and constructing flumes, which have been washed away by high water.

Hondo and San Miguel.—Placers in Olancho. Belong to James Rector, an American. No company yet organized, but $4,000 has been spent in preparations.

Cambell Reduction Company.—Incorporated under laws of New York. Quartziferous mine of free-milling gold ore, in Olancho; $40,000 has been spent on its account, but not exceeding $500 in actual work on the mine. The mismanagement was so gross that the capitalists refused to advance more money, and the property reverted to its prior owner, Colonel Aguillera, who has just cabled from New York that he has organized a new company.

Burke's Concession.—The largest concession of placer mines ever made in Honduras was that made to Maj. E. A. Burke, of New Orleans, in September last. This concession includes many miles of the Guaype River, with a distance of 500 varas width on each side of the river. A vara is a measure of between 32 and 33 inches long. The number of miles is not specifically stated, but the calls and boundaries indicate as many, perhaps, as 50. There was also conceded to the same party nearly as many miles of the river Jalan, with a distance of 600 varas width on each side of the river. This concession is further noticeable in that, that this Government gets a larger direct consideration for it than it has yet obtained from any mining enterprise ever started in Honduras. And, moreover, after the enterprise has declared a dividend of 10 per cent., it is to pay to this Government 2½ per cent. of the annual net proceeds, and after ten years from said time as much as 5 per cent. of the net product from the river Jalan. This feature is a departure from the custom, as in no other mine is the Government to participate in the profits. Within the limits of the granted territory, which is all in Olancho, there is undoubtedly an abundance of gold, and Major Burke is resolved to organize a company for mining operations on a large scale.

Minas de Oro.—The placer mines of Paine, Atchison, and Smart, and those of Wermuth (all Americans), near the town of Minas de Oro, have proven to be valuable. A hydraulic machine is now at work on Mr. Smart's placers.

San Marcus.—At Savannah Grande, is

Santa Lucia Mining and Milling Company and the Rio Chiquito Mining Company.—Both incorporated under the laws of New York, and are located at the healthy town of Santa Lucia, 9 miles east from Tegucigalpa, and 4,000 feet above sea-level. The ore is silver, but carries some gold. The veins are true fissures, with quartz gangue and well-defined walls, and average about 3 feet in width, with varying courses and angles of dip, the dip usually being over 45 degrees. A new steam saw-mill has been recently erected, but active work in the mines is suspended for the present on account of some trouble, the nature, cause, and extent of which are not sufficiently known for explanation in this notice.

Los Angeles Mining and Smelting Company of New York.—Owns the Animas silver mine, which is about 5,000 feet above sea-level, 27 miles east from Tegucigalpa, at the town of Los Angeles. The vein is a true fissure, blanket-vein, with an inclination of 10 to 12 degrees to the horizon. Its thickness is from 1 to 4 yards. The ore is galena ore with some pyrites, and has to undergo calcination before smelting. Its average yield is about 70 ounces per ton. The workings of the natives are still open and accessible, and the ore may be seen for a distance of about 2,000 feet of drifts. This company is making preparations to put up a smelting plant with a capacity of 25 to 30 tons per day.

New York and Honduras Rosaria Mining Company.—Incorporated under the laws of New York, and works its mine at San Juancito, 30 miles from Tegucigalpa. Although it is not of one year's growth, yet during last year it added very expensive and very extensive improvements; and this mine is further deserving of special notice on account of its being, at present, the best-established and most extensively operated mine in Honduras. It should be a source of pride to any American, as he beholds the busy and thriving little town of San Juancito, with its 3,000 inhabitants, gaining their livelihood, mediately or immediately, by means of this American enterprise situated in their midst; and it forecasts what Honduras may be when her rich minerals are properly developed and put under prosperous headway.

The veins of the mine are true fissures, running east and west and dipping to the north. Walls solid; mine dry and well ventilated; tunnels and winzes deep. Output, 2,000 tons of ore per month. Ore of brittle quality, very much decomposed, carrying considerable gold and native silver. Preparing to introduce steam drills. At present twenty-stamp mill and eight pans, and preparing to increase to forty stamps and fourteen pans within six months. Employs sixty foreigners (mostly Americans) and four hundred natives. The ore is transported by inclined gravity road from upper works of the mine to the lower levels, and thence to the mill by wire-rope tramway, a distance of 1¼ miles. The mill is run by a 6-foot hurdy-gurdy Pelton wheel of 450 horse-power capacity. Water is carried to said wheel through a wooden-box flume 3,500 feet long, and thence by a 300-foot fall through a 24-inch iron tube 728 feet long. Native labor ranges from 75 cents to $1.25 per day. Foreigners, on contract-work in mine, earn from $4 to $10 per day, Honduras money. Present production, 3,000 pounds gold and silver bullion monthly, which is shipped to and sold in NewYork. Funds for working are obtained by means of drafts on company in New York, which drafts command a higher rate here than those of any other company.

There are other rich mines of well-known value in Honduras, and especially at Yuscaran, and nearer there than here; but being outside of this consular district, an enumeration of them does not properly belong to this report.

There is, however, one other mine in this district which must be mentioned on account of the wisdom of its owners. It is the Zelaya mine, about 5 miles from San Juancito, and belongs to the Zelaya Mining Company, incorporated under the laws of New York. It appears that this company has put up $50,000, with which (if this much is needed) to thoroughly develop and practically prove the value of this mine, before incurring any greater liability for expensive machinery, &c. The wisdom of this course is deserving of the highest commendation. There [illegible] if not most, of the mining failures are attributable [illegible] quality of the ore to be worked, [illegible] transpor-

sent out here cannot be too careful or particular about the kind of men they send. They should remember that a man's standard of morality, faithfulness, or business rectitude may not be so creditable here as when at home, surrounded by the restraints of his family and friends, higher associations, &c.; and that in the absence of these wholesome restraints, and in new countries where the laws are less rigid, and where immoralities are invariably more common and less detested, men are more apt to prove faithless, worthless, or yield to low temptations, the mere thought of which would, perhaps, shock their finer sensibilities at home. Hence, not the cheapest, but the very best men should be selected, or rather, say, sought after, for these important positions; men who are thoroughly honest, sober, industrious, and wide-awake, and who are of tried ability and well-known experience in the business. And even then there will be plenty of need for allowances, on account of a want of knowledge of the character of the country, of the character of its labor, the habits and customs of the people, and last, but not least, a want of a speaking knowledge of the language of the people, this language being Spanish, not spoken exactly as in Spain, but yet as different from ours.

During last year there was an unwarranted excitement in some portions of the United States about the gold fields of Olancho, caused by flattering descriptions in newspapers, private letters, and oral statements of interested parties. This has brought a number of men here, without capital, who, both for themselves and for the country, had better have remained away. They lose their little all in a vain search, and are plunged from the high hopes with which they came into the depths of despair, and leave the country, naturally scattering against it most gloomy and unjust reports, thus committing the double damage of ruining themselves and disparaging the country. Therefore it cannot be too emphatically nor too often said that this is not "a poor man's mining country." The gold is here, but it cannot be picked up or panned out on the wayside. It requires hard work, patience, privations, and money to obtain it. True, this country is prolific in its spontaneous productions of the necessities of life, but only the absolute necessities, and the traditional "'lasses pond with its bordering fritter trees" is not to be found in Honduras.

The gold deposits average about 30 feet in depth, with the richest portions nearest the bed-rock. This requires heavy machinery, which is very expensive to get into this roadless country. No man or set of men should come here to grow rich in mining who cannot control a capital of at least $20,000. To those who can, the government stands ready to extend a warm welcome, and all concessions, courtesies, and protection necessary. The mining laws in themselves are as liberal as could be reasonably desired, extending as many advantages to foreigners as to natives, exempting from duties the exports of bullion and the imports of all mining supplies, conceding to each mining claim a distance of 250 varas in length to from 100 to 200 varas in width, according to dip of vein, with all necessary wood and water rights without tax or government charge for anything, and allowing exclusive right to each mine "denounced" for an indefinite time, on condition that four men are kept employed in working it, whi

SALVADOR.

Report of Consul Du Pré.

Salvador is supplied with much the greater share of foreign goods sold here by England, Germany, France, and Italy. Cheapness, without reference to real value, effects sales among the natives, untraveled, untaught, and very poor. In payment for these goods and wares the crops of the country, coffee, sugar, rice, tobacco, gum, tolu, cocoa (chocolate), and other tropical products are shipped to Europe. These pay no duty at English ports, and thus England, as a competitor of the United States, proffers a premium of about 30 or 40 per cent. for the trade of Salvador.

It results from these and other facts hereinafter recited that European states are rapidly gaining in this Republic supreme commercial power. If enormous public debts were discharged and grievous burdens of taxation lessened, the common people, widely separated from the governing class by race features as well as by broader and deeper lines of demarcation drawn between poverty and riches, toiling as they do most industriously, would be speedily blest with abundance. The native whites, of pure Spanish blood, constituting perhaps 8 per cent. of the whole population, are the exclusive office-holding and law-making class. These, too, are the land proprietors, and land and houses and lots are untaxed, while the natives, as the masses of these Indians and Aztecs and Meztizos are denominated, must pay a duty, including mole and wharfage rates, of 120 per cent., besides freight charges, on their cotton shirts and machetes. If trade with San Francisco, even burdened with these obstructions, were conducted under terms of a liberal reciprocity treaty, there would be discovered here an invaluable market, especially for cotton goods, hardware, and agricultural implements and machinery. Steel plows are slowly substituted, by progressive native intelligence, for single-handle wooden beams drawn by oxen and described in the pages of Virgil, even as the goad, in universal use in Salvador, is alleged to have been an original and wicked device of Esau. Moreover, in thatch-covered adobe huts evereywhere in Salvador I find cheap sewing machines, and these tawny, black-haired perfectly shaped native women use them most deftly. Native mechanical skill is even wonderful, developing itself wholly in imitativeness. They invent nothing. My English friend broke his gun stock; it was costly, beautifully carved and inlaid with silver. A native mechanic insisted that he could make another. Discrediting his assertions we gave him the fowling piece, as worthless as that of Rip Van Winkle described in the legend of Sleepy Hollow. After ten days the native returned, and as we believed, with the same stock, its broken parts skillfully glued together. We were not convinced of error till the adroit [illegible] the broken gun-stock, from which he had trans- [illegible] of the original, but its

American tariff makes American products of American cotton mills so costly, despite the low cost of food and land in the United States, that we cannot compete with Germany in a market demanding the lowest grades of the cheapest goods. The infinite superiority of American domestics, and especially of goods woven of cotton never compressed for foreign or interstate shipment, was confessed; but the masses of the people of Salvador are very poor and heavily taxed. They wear cotton garments, men and women, buying the fewest possible number of yards at the lowest possible price. Therefore do I find here bales of domestics bearing the brands of the best American mills, and yet the local tradesman tells me that these worthless goods are products of European mills drawing their supplies of raw cotton mainly from India and Egypt.

As the natives have learned the difference in value between the foreign iron and American steel machetes having the same shape and brand, and are learning to distinguish the perfect American sewing-machine from the cheap and rudely-made German imitation, even so will they discover the superior durability of American cotton goods. Therefore do I find in each merchant's ware-rooms a few bales of American domestics sold at 30 per cent. higher prices than European goods of the same nominal grade.

Through the active intervention of agents of the Pacific Mail Steamship Company a very large share of the coffee crop of Salvador and Costa Rica now finds its market in San Francisco.

The Central American coffee crop, of which, perhaps, half has been shipped, England and Germany supplying the sacks, it is estimated, will be as follows:

[1 quintal = 100 pounds.]

Country.	Quantity.	Increase over last year.
	Quintals.	*Per cent.*
Salvador	225,000	20
Costa Rica	250,000	25
Nicaragua	70,000	20
Guatemala	480,000	10

Through the press of San Francisco, I sought some months ago to induce mercantile bodies of that city to proffer liberal premiums for the best agricultural products of Central America, and especially for the best coffee, sugar, tobacco, indigo, cocoa (chocolate), and other peculiar products of Salvador and Costa Rica, these two republics trading most generously with the commercial metropolis of the Pacific coast. Special prizes were to be awarded for tobacco and cigars, for the production of which the districts of Copan in Honduras and Coputepaque in Salvador are especially noted. I was not aware that this wise action had been taken by San Francisco till the fact was published in several newspapers of these Central American States. This press has much to say in commendation of the conduct of California merchants, promising to San Francisco a monopoly of trade with the

borne about everywhere by each man and boy in Central America (the whites carry the stilettos and repeaters), and the cotton goods sold here, all, alike, often bear false brands and are counterfeits.

Peruvian and Chilian pesos (dollars) are the currency of the country, and the natives, as instructed by foreign counterfeiters of foreign commodities, become adepts in making and uttering counterfeit money. Dealing with a native you must pay in silver, and to each coin is at once applied a crucial test of value. It must ring clearly as cathedral bells.

Though the International Bank of Salvador be potent and rich, its notes circulate only in this and adjacent cities. The natives accept nothing but silver. Gold, unknown as money, commands a premium of 30 to 35 per cent. for shipment.

I am led to believe that the United States can have no absolute monopoly of Central American trade until our own revenue codes have been materially modified. The purpose of concentrating the trade of these republics in ports of the United States can hardly be attained, or have its proper value, until this grievous public debt of Salvador, left a legacy to President Menendez by the late President Zaldivar, be paid by custom-houses exacting 125 per cent. upon imports. Meanwhile the people must buy the least possible, smugglers do their worst, and legitimate trades-people hardly subsist.

A blacker shadow than this overhangs the skies of Salvador. Zaldivar, to whose wasteful government President Menendez ascribes all the griefs of the Republic, who is said to have corrupted the governing and degraded the industrial class, many of the former praying, it is stated, for his restoration to power—Zaldivar remains the *bête noire* of Salvador. He constantly threatens the invasion of the country, compelling the maintenance of a costly standing army, for which President Menendez, relying upon the devotion of the natives, proposes the substitution of a well organized militia.

The abstraction of these two thousand soldiers from industrial pursuits and vicious habits of idleness acquired and absolute expenditures in their behalf make them cost the impoverished country quite one million dollars annually.

The trade of the Pacific States of Central America must be confined mainly, until a railway may be built across these republics, to San Francisco. Recently C. P. Huntington bought the railway from San José, a village without a harbor, on the Pacific coast of Guatemala, 75 miles in length, to Guatemala city. Owning, as he does, with others, railway lines extending from Oregon and California to Newport News on the Chesapeake, he must purchase this Central American highway that he may own, as well, a short interoceanic route. It is hardly more than 180 miles from Guatemala city to the Bay of Honduras, hard by New Orleans and Mobile. But there is no harbor at San José, and to create one would cost more than that at Cherbourg, France—an almost incalculable sum. On the contrary, though the country be rough, as rent by earthquakes through past ages, the construction of a railway from a good harbor on the Bay of Honduras to another, La [illegible] desirable of all possible

HAYTI.

PORT-AU-PRINCE.

Report of Consul-General Thompson.

COMMERCIAL PROSPECTS.

Since the revolution in 1883, when certain cities of Hayti were in a state of siege, and fearful forebodings indulged in by capitalists, there has been a steady declination of trade, notwithstanding eventually the Government forces succeeded in causing the insurgents to capitulate. The leader of the revolution dying, his party was totally demoralized. This result should have caused an improvement in commercial affairs, as the administration of President Salomon showed that the Government was capable of overthrowing such insurrectionary tendency, and that, too, of a party guided by an intelligent chief; but entire confidence in commercial circles has not been fully established. The merchants, becoming fearful of risking their money, ceased relying on Governmental securities, or nominally remained contented in doing business on a smaller scale.

For the present fiscal year a possibility exists of an augmentation in business. There is every reason to expect a fair coffee crop, which is the staple export of the country. Nearly all of this article is shipped to Europe; hence the exporters have their credit in Europe, and if there is an abundance of coffee exchange will fall and good times be enjoyed.

On June 30, 1886, General Salomon was re-elected for seven years more to the Presidency, having a majority so favorable in the senate and house that he was elected unanimously; and it is believed he has succeeded, on the one hand, by the defeat and death of Boyer Bazelais and voluntary exiling of others of the leaders, and, on the other, by appointing to such positions that they are harmless many of the agitators of those heterogeneous parties that have been a curse to this Republic since its independence; parties who, by their constant interference in political affairs, have continually caused governmental derangement, and turned the ideas of those who might have been bent on honest pursuits to live "by the sweat of their brow" to the fascinating adventures inspired by cupidity and ambition, fostering intrigue that resulted in rebellion, so it had become a habit, as it were, so deeply rooted that a reported movement against the authorities at any one place was looked upon with a sublimity well advanced on the philosophic, and by many of the non-politic element with the reasoning of the optimist. Now it is believed by many that these numerous outbreaks are fast coming to an end, and as the countries of South America are producing stupendous quantities of coffee, unless peace and its concomitant join with labor for the tillage of this soil—Hayti depending upon her spontaneous growth of coffee, almost void of cultivation—Haytians, neglecting the wonderful resources that thus could flow with
national treasury

only way of rescuing the country. I have heard Germans say that if it was not from fear of the climate by their people they would make a move in this direction. But withal it is pointed out that owing to the position taken by the United States in the treatment of this Republic, they dare not, regardless of the "Monroe doctrine," even interfere when the Stars and Stripes, with their love of freedom, liberty, and national autonomy, continue to recognize Hayti as heretofore.

AGRICULTURE.

The prolificacy of this soil is astonishing. With attention any fruit or vegetable could be raised; certainly much care must be used, for as the seeds planted will flourish so will the weeds that would interfere greatly with their growth. In consequence a true system of agricultural science would be absolutely necessary in cultivating and developing the soil. Agriculture is in a very rudimentary stage; still, the natives persist in working on the same principle of the times of the old French colony; the hoe, cutlass, and indigo knife are the sole agricultural instruments used; and could some enterprising house send out an agent to study the want, or parties knowing the wants of the South American trade would give attention to this field, a lucrative business might be opened in agricultural implements, especially such as are adaptable to mountainous regions.

As aliens cannot own real estate in Hayti, there is not much inducement for foreigners, capitalists, to engage in agricultural enterprises, and thus far vast quantities of rich farming land remain idle. During the past year the Government have had a few farming implements of various kinds imported into the country through the American house E. Steinbrügge & Co., which were distributed to those whom it was presumed would value and use them; but if such were at all complicated great results cannot be expected, or that they will be very serviceable to people unpracticed in their operation.

Likewise it is said the Government sent for and received better plants in order to improve the cultivation of bananas, taking into consideration the amount of that fruit consumed in the United States and the great revenue derived therefrom by some of the neighboring islands. The move was a good one, but apparently unappreciated. There is no doubt that the need of this country for its certain progress is foreign industry, its muscle, and indefatigable enterprise.

In order to show more particularly the necessity of cultivating their chief export, coffee, and endeavoring to assist it by other exports so as to make up by production for the low prices paid here lately, it is only necessary to quote the prices since July, 1885, per cwt., not losing sight of the price five years ago, which ranged between $14 and $16 per cwt.:

Months.	Price.	Months.	Price.
	Per cwt.		*Per cwt.*
July, 1885	$6 10	January, 1886	$5 00
August, 1885	6 10	February, 1886	5 00
September, 1885	6 10	March, 1886	5 00
October, 1885	6 10	April, 1886	5 00
November, 1885	6 10	May, 1886	5 00
December, 1885	6 10	June, 1886	5 00

CLIMATIC CHANGES.

The country has been suffering from severe drought for the past seven or eight years. This year, however, has been an exception, even during the so-called dry season there has been rain in abundance. Commencing in December last, 1885, it continued almost incessantly. Small crops of coffee have resulted from the drought, but this year the crop, which averages annually 60,000 to 70,000 pounds, produced about 45,000, as the heavy rains beat off the blossoms and buds, thereby decreasing the berries.

HEALTH AND POPULATION.

For the past year very good health throughout the island has been the general case; in fact, it is doubtful if any of the islands of the Antilles can show so clean a report, being free from epidemics of all kinds, and no appearance of malignant diseases so common during the hot months in the tropics.

By the last census, taken some ten years back, for Hayti entire, there were supposed to be 1,000,000 natives; for Port-au-Prince 30,000 was estimated. Regardless of the number of victims in political domestic disturbances, it is considered that since the past decade there has been an increase in the population. At this city, the capital, and its suburbs, which, I judge, may be looked upon as a criterion for the other cities, the number of births from July 1, 1885, to June 30, 1886, inclusive, have been 1,987. The deaths for the same period in the city amount to 853.

The population of the Republic arranged according to our consular districts would be about as follows:

Consular districts.	Population.	Consular districts.	Population.
Port-au-Prince (city)	40,000	Aux Cayes	30,000
Cape Haytien	15,000	Jacmel	55,000
Port de Paix	10,000	Jéremié	35,000
Gonaïves	21,000	Miragoâne	18,000
St. Marc	20,000	Petit Goâve	25,000

CONSTRUCTION OF A RAILWAY.

A law sanctioning the contract for the building of a railway from the city of Gonaïves to Gros Morne, a distance of about 24 miles, with the eventual termination at Port de Paix, was published in the Moniteur of the date August 19, 1886. This contract has been made with a French firm, who some years back sent engineers exploring into that part of the country, and who evidently found the condition particularly rich and profitable for the scheme, because ever since they have been striving to get the concession, and the only subvention given by the Government consists in the wood found in a parallel of 10 kilometers to the right, and 10 to the left, of the line on the public ground of the state. It is said that the above-named country abounds in forests of the finest quality of mahogany and logwood [illegible]

Such an enterprise embodies results of more or less significance. If successful, it will be the means of causing similar lines to be laid at available points and thus opening up anew the exportation of articles now difficult to obtain. Brazil wood and other valuable woods which have a marked value are now unavailable for want of roads and means of transportation to the seaboard cities.

APPROPRIATIONS FOR 1886–1887.

The budget for the incoming year, 1886–1887, aggregates $4,143,523.28, distributed to the different departments as follows:

Secretary of state of foreign relations	$96,576 74
Secretary of state of finance, &c	545,302 49
Secretary of state of war and navy	1,126,412 62
Secretary of state of interior and police	976,693 28
Secretary of state of agriculture	260,296 00
Secretary of state of public instruction	750,207 50
Secretary of state of justice	315,986 00
Secretary of state of worship	72,048 75
Total	4,143,523 28

Presuming that the export and import duties will aggregate the same as this year, $5,231,285.08, will leave a balance in the national treasury of $1,087,761.80, to pay off the different amounts of interest on the bonds of the Caisse d'Amortissements and the public debt.

NEW COINS.

On May 19, 1886, a law was passed by the national assembly that there was to be ordered for immediate circulation new silver and bronze coins to the value of $200,000, divided in this manner:

Silver coins of ten centimes	$150,000
Bronze coins of one and two centimes	50,000
	200,000

FINANCIAL CONDITION.

In September, 1880, the national assembly voted a law authorizing the Government by virtue of a contract made with the national bank of Hayti to have coined and put in circulation $2,000,000 in pieces of gold, silver, and bronze. At a later date the gold pieces were substituted by those of silver, divided as follows:

Silver:		
One-dollar pieces to the value of	$460,000	
Pieces of 50, 20, and 10 centimes	1,490,000	
		1,950,000
Bronze pieces of 1 and 2 centimes		50,000
		2,000,000

commenced a very

In 1884 the Government issued $1,000,000 of paper money, the redemption of which was guaranteed by a surtax of 33⅓ per cent. on the fixed importations, and there commenced again the importation of American and Mexican silver. All of this paper money was redeemed.

During the year 1885 the Government issued $2,000,000 paper money, redeemable by 30 per cent. of the export duties on coffee; $600,000 in the past year (July 1, 1885–June 30, 1886) has been redeemed and burned in public on the "Place de la Paix." There were huzzas from the mass of bystanders and the interested multitude, for it is an acknowledged fact by all, the poor as well as the rich, that the day has not yet arrived, and is far distant, when Hayti can without risk put in circulation money of no intrinsic value. Indeed, a quantity of the coins have been exported and sold for the silver contained in them.

PUBLIC DEBT.

Considering the numerous political disorders that have so great a tendency to impoverish a country by its coincident internal indebtedness, from destruction of public property and payment of just indemnities to foreigners peacefully residing in the land, the public debt of Hayti is indeed remarkably small, amounting to $13,362,978.88. Below is a statement of such debt, which embraces four distinct heads:

(1) The bonds of the Caisse d'Amortissement (liquidation funds).

(2) The Domingue loan.

(3) Divers; such as paper money, ordonnances for salaries, unpaid interests.

(4) Foreign indemnities.

There exists in bonds of the Caisse d'Amortissement $425,592.72, bearing 18 per cent. interest; $2,012,705.20, about $200,000 at 18 per cent. interest, the remainder at 6 per cent.; $1,121,950.88 at 6 per cent; $1,186,722.08 at 6 per cent.; total, $4,746,971.01. Making about $360,000 yearly interest to be paid.

The Domingue loan, according to the new contract of July, 1885, reducing these obligations of 500 francs each to 300 francs, presents the following table:

	No.	Value.
		Francs.
Obligations at 300 francs	72,353	21,705,900
Shares at 60 francs	70,908	4,254,480
Total		25,960,380

These bonds represent unpaid interest due up to July, 1880.

This loan is extinguishable by yearly payments of interest and liquidating capital, amounting to 1,557,622.80 francs, and will last thirty-seven years—from July, 1885, to July, 1921. The 20 per cent. additional tax on export duties on coffee is applied to the payment of this sum, which is not charged to the budget.

The first year's interest and liquidation is paid; there has been paid likewise a share, accepted by the hold[illegible]

One per cent. of the liquidation on the total amount of the loan is already paid—259,603.80 francs—making a yearly total of 1,557,622.80 francs.

The table of interest and liquidation is so arranged that each year there has to be paid the same sum. The interest diminishes in consequence, but the liquidation of the capital augments in proportion.

According to the agreement the interest is payable half-yearly and the liquidation yearly. For this liquidation a drawing takes place at Paris.

According to the above each obligation, originally of 500 francs, reduced to 300 francs at 5 per cent., produces 7½ francs half-yearly.

Each share originally of 100 francs reduced to 60 francs at 5 per cent. per annum produces 1½ francs half-yearly.

As it will be perceived there is required to meet this yearly, according to the convention, a sum of 1,557,622 francs, or about $300,000.

Since the agreement the selling rates of these obligations have augmented in a very large proportion, and this arrangement scrupulously carried out by the Haytian Government has produced as a result that to-day the confidence is such that the large banking-houses place at the disposition of the Government the sums that it may need to disengage itself of its creditors.

Under the head of "divers" we find as follows: Paper money in circulation $2,000,000, including the $600,000 withdrawn but not reimbursed; ordonnances, unpaid interest about $450,000; total, $2,450,000.

The foreign indemnities are:

Two-third Gonaïves indemnities	$218,436 62	
Four-sixths Port-au-Prince indemnities, about	480,000 00	
Total of indemnities		698,436 62

RECAPITULATION.

Bonds of the liquidating fund	$4,746,971 01
Domingue loan	4,867,571 25
Paper money in circulation	2,000,000 00
Two-third Gonaïves indemnities	218,436 62
Four-sixths Port-au-Prince indemnities	480,000 00
Ordonnances, unpaid interest	450,000 00
Standing credit at the bank	300,000 00
Treasury bonds acceptable in payment of customs duties	300,000 00
Total	13,362,978 88

Therefore, as we have just seen, the debt of Hayti is at highest figures $13,362,978.88.

The revenues of the Republic are, according to the average drawn from the past five years, $6,000,000 per annum.

IMPORTS FROM THE UNITED STATES.

Provisions.— Lately, owing to the improved quality of American provisions, they have been much in demand in this market, the [illegible] goods; the meats, fruits, and

the French manufactures. One great fault is the low instep of American shoes.

American cotton goods.—During the past two or three years the trade in American cotton goods, especially prints, has augmented considerably and beginning to take a firmer foothold in this market, monopolized in the years back by English goods. This has been brought about in a measure by the untiring efforts of the enterprising head of an American house doing business here, who has studied the market and had goods prepared especially for it. The increasing demand and preference shown bids well for this branch of our manufactures in the near future. It depends upon those interested to improve this outlet for a portion of the immense quantity manufactured in the United States and thus become an important item of our exports to Hayti.

EXPORTS TO THE UNITED STATES.

The exports from Hayti to the United States consist of logwood, coffee, cocoa, honey, goat-skins, hides, mahogany, beeswax, cotton-seed, orange peel, old metal, turtle shell, fustic, lignum-vitæ, rags, pickled limes, and sugar.

GROWTH OF SUGAR-CANE.

Sugar-cane grows luxuriously in the plains, but very little is manufactured into sugar; the sirup made is used generally in lieu of sugar, but the greater part is distilled into rum (tafia), valued at 30 to 40 cents per gallon, used for consumption among the natives. Sugar-cane pays on an average more than coffee at the low-prices which it has brought for the past few years, and many seem disposed to abandon the cultivation of coffee for sugar-cane. In Santo Domingo the chief export has been sugar, and it seems strange that the manufacture was not undertaken on a larger scale on this side of the island.

MODE OF TRAVEL.

Up to a few years ago travel was exclusively on horseback, but now a great many light vehicles are imported and extensively used; carriages are run on the cab system for public hire. Buggies are becoming very popular with business and professional men; in fact the higher class of people are beginning to keep private carriages. The major quantity of all conveyances are imported from the United States, but there is a preference for English harness. I have communicated to several American houses to send their catalogues, judging our harness as durable and cheaper than the English, and have succeeded in interesting several large dealers here who are trying to work up such trade, also that of saddlery. English saddles have always been the only article used. The roads are very bad and filled with stones, but dog-carts, phætons, even landaus are making their appearance, and there should be no question of these importations coming from anywhere but the United States.

A truth that seems to be lost sight of in preparing catalogues is that the language of this country is the French; and although Hayti, Guadaloupe, and Martinique are the only islands where French is

SOUTH AMERICA.

ARGENTINE REPUBLIC.

BUENOS AYRES.

From Consul Baker.

FINANCIAL CONDITION.

My last annual report left the Argentine Republic "temporarily clouded by a laudable but ill-considered desire to 'do too much and go too fast.'" During the consular year just closed the country has been suffering from the effects of that policy. National borrowing and commercial overtrading have produced their legitimate results. The credit of the nation has been greatly taxed, if not strained, by the demands which have been made upon it, and commerce has had to struggle through a most unprofitable year. The suspension of specie payments has continued to unsettle values, and in the midst of the most violent fluctuations of the premium on gold, running up and down the scale from 10 to 65 per cent. and back again, business has had to be transacted without any fixed basis on which to make calculations for the future. The only wonder is that the merchants of the country engaged in the foreign trade have been able to withstand the pressure and maintain themselves so well. Only very few failures, however, have occurred during the year, and those were of no special importance. The business of the country is now trying to accustom itself to a depreciated currency, which may represent 80 cents to the dollar one week and only 50 cents the next.

CATTLE LOSSES BY FLOODS AND EPIDEMIC.

Besides the unsatisfactory monetary situation, the country during a portion of the year has suffered great losses in cattle and sheep from the excessive floods which inundated a large portion of the province of Buenos Ayres, and which, in some cases, drowned out whole estancias. To this succeeded a large mortality in the flocks and herds from some mysterious disease, hitherto unknown in the country, and which more than decimated what remained of the stock after the floods had subsided. The total losses from the floods were given at 500,000 mares and horned cattle, and 12,500,000 sheep, valued at $17,900,000, while the losses from the disease were put down at 7,000,000 sheep, equal to $8,000,000 more, making a total of nearly $26,000,000. As the annual increase is estimated at 20 per cent., making allowance for animals [illegible] there are to-day not so many sheep in the

ening the speed at which it was progressing. Everything seems still to be going ahead on the "high-pressure" principle. The sheep farmers have really profited by the premium on gold in this, that while they sell their clip for gold they pay the expense of producing it in depreciated paper. The proprietors of "saladeros" have done the same with their jerked beef, tallow, and hides. Even the Government has virtually taken a hand in the speculation. Receiving gold on account of its late foreign loans, it has converted great portions of it into paper at the premium, thus making an average profit of 50 cents to the dollar in meeting its payments for the public works in which it has been engaged. The ease with which paper could be obtained from the banks has, during the year, given great opportunities for speculations, not only in gold, which have been excessive, but in all public stocks and in real estate. Throughout this portion of the country the prices of land have gone up to unprecedented figures, in many cases what was purchased for a few hundred dollars finding ready buyers again for as many thousands. Meanwhile, instead of "taking in sail" with a view to returning to specie payments, the imports of the country, already excessive, have continued to increase; and the exports, owing to the bad year, have continued to decrease, thus for year 1886 leaving a larger balance of trade against the country than ever before. In order to ease up the situation as much as possible, the terms of the law legalizing the suspension of specie payments by the banks for the period of two years, and which would have expired on the 1st of January next, have, by order of Congress, been extended indefinitely; that is, "until such time as, in the opinion of the President, it will be safe to require them to resume." The trouble with the banks is that they have made use of a large portion of their metallic reserves in pandering to the speculations in gold.

INTERNAL PEACE AND QUIET.

In the midst of this anomalous state of affairs, legitimate business was embarrassed by the recurrence of a general election of a new President of the Republic. The uncertainty which veiled the result, and the fears which were entertained that the public peace might be disturbed, had for a time the effect of making private capital seeking investment more cautious than it otherwise would have been in its movements. Indeed, there was much capital which left the country until the issue should be decided. To the credit of the Argentine Republic it is to be said that it passed the ordeal triumphantly the first time in its history as a nation, and the successor of President Roca was not only elected but installed without bloodshed or any attempt at revolution. President Celman, in his inaugural address congratulating the country on the peaceful auspices under which his administration begins, alludes to this circumstance. He says:

> The new period now inaugurated has a brilliant starting point, worthy of figuring in the list of our most glorious triumphs. For the first time in our stormy history, so full of sad experiences, the ceremony of investing the new president with the insignia of office, takes place amidst a perfect smiling peace; for the first time the struggling parties have not forgotten, even in the effervescence of political fighting, that for a free people under the form of constitutional government only the [illegible] the ballot can solve the burning [illegible]

ARGENTINE FOREIGN RELATIONS.

Not only has the Argentine Republic enjoyed six years of uninterrupted peace within her own borders—six years devoted to the great work of developing the resources and making sure the wonderful possibilities which the country possesses—but there has continued to be no interruption in the friendly relations which have for so many years characterized its intercourse with other nations. The long pending question of the boundary line with Brazil was settled by a treaty of the date of September 28, 1885, and in pursuance of its terms each nation has appointed commissioners whose decision will be final. A difference with Chili on account of the seizure by that power of the French bark Jeanne Amelia, while loading guano at the mouth of the river Santa Cruz, near the Straits of Magellan, has also had a friendly termination and the damages claimed duly paid by the Chilian Government, thus removing the last vestige of the old boundary question between the two nations.

TERRITORIAL PROGRESS.

In a former report I referred to the organization of territorial governments for the Gran Chaco and Misiones in the extreme northern limits of the Republic and the dividing up of Patagonia into a number of distinct territorial governments, in order thus the better to promote and secure the development of that part of the country. These territorial subdivisions have been of great service in this respect, and from all parts of that hitherto neglected and desolate country now come to us reports of the opening of new settlements and the stocking of new cattle estancias. The forests, the rivers, the wide ranges of meadow, and the mines which have thus been rescued from the possession of the savages represent an incalculable wealth to the Republic; and at the rate at which they are now progressing it will not be long before all these territories will be admitted as States or provinces by the national Congress.

During the last year Colonel Fontana, governor of Southern Patagonia, made an extended expedition with a company of hardy Welsh pioneers from Chupat up to the headwaters of the river of that name in the sub-Andean regions. During an absence of four months, in which they traversed over 3,000 miles, he reports that they discovered a most magnificent country, with great lakes, rich valleys, fine pastures, dense woods, and all the elements necessary for supporting a large population, close under the Cordilleras, with passes quite accessible through to the Pacific. He says:

> Who could have believed that such a paradise could have remained unknown for so many centuries? Who could have supposed that the barren wastes and stony steppes of the Patagonian seaboard were the outer margin of a land teeming with fertility and delightful water-courses near the Andine slopes?
>
> [illegible] kinds of timber, among which were [illegible] pitch tree (*cala-*

Explorations have also been made south of the river Gallegos, and such excellent pasturage has been found along the northern shores of the Straits of Magellan—in the neighborhood of the recent gold discoveries—that large quantities of sheep have already been sent across there from the Falkland Islands.

In Terra del Fuego likewise have there been several exploring expeditions, and not a little of that inhospitable wilderness is found to be made up of good pasturage and rich valleys, and already stocked with cattle by the natives. Other expeditions are already in preparation, and we shall probably in a short time know much more of that "land of fire."

From Buenos Ayres now there are regular lines of steamers running to Carmen de Patagones and up the winding Rio Negro as far westward almost as the Cordilleras, all that valley now being a succession of sheep and cattle estancias. A railroad is already projected from Bahia Blanca (an extension of the Great Southern Railway) to Carmen de Patagones, while another road is now under contract from the deep anchorage of New Bay to the Welsh colony of Chupat, a distance of about 40 miles. The movement not merely of cattle-farmers, but of newly arrived immigrants, to the southern portions of the national territory during the last year has been very marked.

THE WORK OF RAILWAY CONSTRUCTION.

The work of railway construction has been prosecuted with more than usual activity during the past year.

The extension of the Central Northern road is now completed a distance of 270 kilometers beyond Tucuman, and most of the work is ready for the superstructure as far as Salta. One hundred kilometers of road have likewise been completed between Rosario de la Frontera and Metan. The work between Chilcas and the Rio Pasagè is in progress, and the whole line will be pushed during the coming year, as also the branch from Dear Funes to Chilceto, a distance of 415 kilometers.

All the accessory works of the branch of the Northern Central to Santiago del Estero have been finished, and also of the branch to Chumbicha, 176 kilometers, and both lines have been opened to the public service.

The road from Buenos Ayres to Rosario, a distance of 305 kilometers, finished at the date of my last annual report, has been running regularly during the last year, thus reducing the time between the two places to seven hours. It is now being extended on to Sunchales, 45 kilometers, and will soon be completed to that point.

A second road, projected in the interest of the Buenos Ayres and Pacific road, is now under construction from here to Mercedes, in this province, where it is to connect with the said Pacific road, now completed as far as Mercedes, in the province of San Luis, a distance of 336 kilometers. It is now being further pushed on to Orellanos, 355 kilometers, to which place it will be finished in a few months. From Mendoza westward the last link in the Andine road is now under contract.

Various other roads h[illegible]

As showing the progress which railway construction has been making in the Argentine Republic, I may say that in October, 1880, the total number of kilometers was 2,318, of which 810 belonged to the national Government, 348 to the provincial government of Buenos Ayres, and 1,104 were in private hands. There are now 6,152 kilometers in the Republic, of which 1,877 belong to the nation 1,104 to the provincial governments, and 3,161 to private companies; a gain of about 3,834 kilometers in a little over five years.

PUBLIC PORT WORKS.

Another class of public works in which the Government is now engaged is the building of ports at several important points. In my last annual report I referred to the provision which the Argentine Congress had made for the erection of most extensive port works and docks in front of the city of Buenos Ayres, $10,000,000 having been directly appropriated for the purpose, and a contract for the work having been signed with Señor Eduardo Madero. Since then the engineers have completed the surveys and they have been duly approved by the Government. It is supposed that the work will be commenced early in 1887. The importance of this port to the commerce of Buenos Ayres can hardly be overestimated. I accompany this with a sketch of the proposed harbor.

The deepening of the Riachuelo Canal, just to the south of the city, has also been persistently prosecuted during the last year, and that port will continue to be a complementary harbor to the city of Buenos Ayres. In this view the Government has contracted with both the Southern and Western Railways for the erection of extensive moles and warehouses on the Riachuelo, which are to be built at the expense of those companies and placed under the control of the Government.

Besides these ports, there has been constructed during the past year a very extensive mole at Bahia Blanca, built by the Southern Railway; also one at Alalaya, and others are being constructed at Zorate, at Rosario, at Santa Fé, at Concepcion del Uruguay, at Gualeguachú and at Corrientes, the whole entailing a total cost to the Government of over $600,000. The construction of these ports will greatly assist the river commerce of the Argentine Republic.

INTERIOR NAVIGATION.

This river commerce, comprehending the Rio de la Plata, the Uruguay, the Paraná, and their various affluents, is every year assuming larger proportions. The following table shows the total movement for 1885 compared with that of 1884:

	Arrivals.		Departures.	
	1884.	1885.	1884.	1885.

PORT SCHEME.

Buenos Ayres.

Railway.

Boca.

MADERO DOCKS.

Inner Roads.

Rio de la Plata.

Canal Entrance.

It will be seen that the total movement was 48,269 vessels, with 4,908,449 tonnage, in 1884, against 53,972 vessels, with 6,005,882 tonnage, in 1885.

The following table shows the percentage of steamers and sailing vessels respectively engaged in the river trade since 1880:

Year.	Steamers.	Sailing vessels.
	Per cent.	*Per cent.*
1880	62	38
1881	72	28
1882	73	27

Year	Steamers.	Sailing vessels.
	Per cent.	*Per cent.*
1883	74	26
1884	76	24
1885	77	23

At this rate the sailing vessels, which mostly consist of small schooners, will soon be entirely superseded by steamers. Of this river navigation 41.6 per cent. belonged to Buenos Ayres; 25.7 per cent. to Rosario; 13.9 per cent. to Santa Fé, and 3 per cent. to Paraná, the smaller river towns being credited with the balance. Of the vessels engaged in the river trade, 46.1 per cent. carried the Argentine flag; 32.9 per cent. the French flag; 10.2 per cent. the English flag; 2.5 per cent. the Uruguayan flag; 2.3 per cent. the German flag; 1.7 per cent. the Italian flag, and 4.3 per cent. the flags of other nations.

MOVEMENTS OF INTERNAL COMMERCE.

The movement of merchandise by the river craft during the year 1885 compared with that of 1884, is given below:

Years.	Produce of the country.	Imported merchandise.	Total.
1884	$24,615,401	$29,689,475	$44,304,876
1885	17,556,491	31,382,385	48,938,876

A gain of about $4,500;000 in the year.

The following table shows the most important articles, the produce of the country, which made up the river shipments during the year 1885:

Articles.		Quantity.	Value.
Liquors	liters	3,031,470	$344,442
Sugar	kilograms	14,063,167	1,828,211
Lime	do	2,372,761	700,147
Vegetable black	hectoliters	1,091,804	1,091,804
Jerked beef	kilograms	4,488,848	586,710
Meat extract	do	52,474	114,948
Wheat	do	38,944,376	3,799,865
Eggs	dozens	295,008	73,752
Soap	kilograms	278,164	27,815
			121,316
		12,358,198	617,906
	kilograms		566,276
			569,873

In regard to the river traffic, I may add here that the great development of which it is susceptible has lately attracted the attention of foreign capitalists, who have not only invested deeply in existing lines of steamers, but are now building in England a number of new craft for the trade. It is intended that some of these new steamers shall be constructed after the style of the Mississippi River boats, with flat bottoms and the machinery on deck, thus insuring very light draught and enabling them to navigate the smaller rivers and affluents of the Parana, on all of which there are appearing small towns and commercial centers, and in the neighborhood of which agricultural settlements are everywhere springing up.

OUTLOOK OF AGRICULTURE.

In regard to the progress of agriculture in the Argentine Republic, I have lately made so many special reports that it is hardly necessary to dwell upon it here. As new agricultural laborers are arriving by every steamer and passing into the interior, it is impossible, in the absence of official statistics, to state positively the breadth of land now under cultivation, but all reports concur in the opinion that the crop which is now almost ready for the harvest will by all odds be the greatest, not only in the number of acres in cereals, but in the yield per acre, that has ever been produced in the country. While the Government itself has abandoned the idea of special Government colonies, finding it better to let those seeking to engage in agriculture buy or rent wherever they can do so to their own best advantage, yet it has charged the agricultural department to put forth special efforts for the improvement of the varieties of grain grown in the country, and for the introduction of the very best breeds of cows, sheep, and horses, and for the promotion especially of viticulture. The following table of exports of crop products will give some idea of the progress which the agricultural industry is making in the Argentine Republic:

Articles.	1883.	1884.	1885.
	Kilograms.	*Kilograms.*	*Kilograms.*
Wheat	60,754,677	108,499,228	78,493,392
Flour	4,844,385	3,734,389	7,447,077
Indian corn	18,634,351	113,710,088	197,859,612
Barley	177,909	362,558	2,109,368
Baled hay	11,640,500	11,846,071	13,765,011
Linseed	23,161,736	33,991,650	69,426,104
Peanuts	2,617,292	1,992,655	2,229,557
Potatoes	1,382,606	310,339	483,389

SUGAR, RUM, AND WINE PRODUCT.

The production of sugar in the provinces of Tucuman and Santiago del Estero last year is given by the minister of finance to have been 32,000 tons, while the wine crop of Mendoza San Juan, and Cordoba amounted to 3,890,000 gallons, and the production of rum reached to 1,540,000 gallons. There is no doubt that these home products are beginning to compete with the foreign articles, but the yield at home is not equal to the demand, and so the imports from abroad continue large, as will be seen from the following figures:

Arguing from these figures the finance minister congratulates the country that "before long it will not only cease to import wine, sugar, and rum, but begin to export these products to other countries."

IMMIGRATION.

Meanwhile the volume of immigration from Europe, in great part consisting of agriculturists, goes on increasing year by year. I have only recently made a full report to the Department on this subject, and hence it may be sufficient to say in this connection that the number of immigrants who arrived here during the year 1885 was 108,722 against 77,805 in 1884, and 63,243 in 1883. Of the arrivals of 1885, 63,501 were Italians, 4,314 Spaniards, and 4,752 French; the rest being Germans, Swiss, Austrians, English, &c. They consisted of 53,290 farmers, 6,935 day laborers, and the rest belonging to different mechanical trades. Thus far during 1886 the number of European arrivals is put down at about 70,000, and will probably reach to 100,000 before the end of the year. The greater portion of these immigrants are entirely impecunious, having little more than a bag of clothing, and some of them a few articles of household furniture. The portion that embark in farming generally are sent forward at once at the expense of the nation to the agricultural colonies either in this province or that of Santa Fé, where they provide themselves with farms of a few acres in extent, either by renting or buying on long time, payable in yearly installments, from private parties.

THE PRICE OF LANDS.

The great mistake the government makes in regard to its public lands is that it does not divide them up into small parcels for the benefit of and within the means of men of little means who desire places for their own actual settlement. Instead of this the national lands are put up for sale at auction, at a given base of so much per league, and of course in this way they are entirely out of the reach of arriving immigrants. During the last year the Government disposed of 516 square leagues in the territory of Neuguen, at an average of $2,019 per league, one-sixth cash. A large portion of the public domain has already in this manner passed into the hands of private speculators. As it may be of interest to know the current market prices of such lands, I take from a recent circular of Messrs. Pico & Gornez, land agents of this city, the following average of sales for the last three months in different parts of the Republic:

Locality.	No. of leagues.	Price.	Price per square league.
Province of Buenos Ayres	117	$3,319,000	$28,400
Province of Cordoba	22	166,000	7,580
	2	50,000	25,000
	11	23,000	2,100
	91	697,000	7,700
			4,040

There is, however, an extreme range of prices even here in the province of Buenos Ayres, as will be seen from the following sales, also reported by the same agent:

County or partido.	Price per league.	County or partido.	Price per league.
Azul	$36,000	Lincoln	$17,000
Baradero	200,000	Mercedes	210,000
Bahia Blanca	25,400	Magdalena	71,000
Bragado	43,500	Monte	150,000
Bolivar	20,000	Navarro	115,000
Carmen de Areco	174,000	Peguajó	21,500
Cañueles	50,000	Pergamino	76,000
Chascamus	80,000	Puyrredon	25,000
Chivilcoy	110,000	Puan	30,000
Dolores	38,500	Ranch	24,000
Giles	145,000	Saladillo	60,000
Guamini	10,500	Salta	63,000
Juarez	28,000	Suarez	22,000
Las Flores	25,000	San Antonio	160,000
Las Heras	90,000	3rd section	10,000
Loberia	37,000	4th section	3,400

The medium price in the province of Buenos Ayres has been $68,000 per square league, or a little over $10 per acre. The average, however, of the sales was only $28,400 in consequence of the bulk of the sales having been in partidos or counties remote from this city, and hence of less value. These lands are all for grazing purposes, being rolling prairie or pampa, entirely devoid of timber.

THE NATIONAL FORESTS.

The timber of the country is all in the far interior or along the upper rivers, where exist in their primitive condition thousands of leagues of the most magnificent hard woods to be found anywhere in the world. I have already referred in former reports to movements which have been made for shipping them to Europe, and of the laws which have been passed by the Argentine Congress for their protection against a vast army of trespassers, who make their living by appropriating to themselves all that they can cut and float out of the country. The custom-house returns for this reason show but a small portion of the timber which leaves the River Plate for foreign ports. The shipments reported to the custom-house last year amounted to only $339,020 against $394,848 in 1884. The President, in his last message to the Argentine Congress, referred to the importance of a law which would better protect the national forests and save them from the devastation which they are now subject to; but that body adjourned without taking any action in the matter.

DISCOVERY OF COAL.

The question of coal deposits in the Argentine Republic, about which there has in the past been so much doubt and uncertainty, is gradually approaching an affirmative solution. In my last annual report I referred to the discoveries made by Colonel Oloscoaga, in the portion of the province of M

been making scientific researches on the estate of Sr. Igarzabal, near Paganso, in the province of Rioja, announces to the public that "coal is there, rich and abundant and only thirty kilometers from the Colorados Railway station on the Chilceto and Dean Funes Railway line." A plan of the deposits has been drawn up with a view to their exploration. So I suppose the "conundrum" of coal or no coal may now be considered as fully answered in the affirmative.

PETROLEUM.

I may add here that a company has lately been formed in this city for working the petroleum deposits, heretofore announced by me to have been discovered near the city of Mendoza. We now have intelligence that at a depth of 120 meters the deposit was reached, and that a steady stream of pure petroleum comes to the surface. The news has caused some stir here, in view of the great and constant demand all over the Argentine Republic for kerosene oil, the bulk of which now comes from the United States. Owing, however, to the distance from the River Plate at which this Argentine petroleum is found and the expense of transportation, I doubt if it will be able to compete in price with the American article, unless the Argentine Government puts on a prohibitive tariff.

MINES AND MINING.

The miners in the interior of the Republic offer nothing new since my last annual report. We are persistently informed that the various companies which have been formed to work the mines in the provinces of San Luis and Rioja are in a way to do a large and profitable business; but while their machinery is of the most extensive and elaborate character, thus far their operations have been very limited, and scarcely anything to show for their labors. The following figures show the total shipments from the country during the year 1885:

Description.	Quantity.	Value.
	Kilograms.	
Copper in bars	170,114	$67,996
Copper ore	86,962	16,015
Lead in bars	19,130	2,330
Lead ore	35,497	6,334
Total		82,675

A very sorry exhibit, in which neither gold nor silver cuts the least figure, though it may be that those metals, instead of being shipped from the country, were turned into the national mint of this city for coinage. I very much doubt this, however, as such a fact would have paraded at the time. The returns show that during 1885 the fol-

[illegible] coinage: $948,279

1885 there passed through this country from Bolivia, *in transitu* for Europe, the following quantities of the different metals:

Description.	Quantity.	Value.
	Kilograms.	
Bismuth	239,037	$808,743
Tin	142,504	59,433
Silver and silver ore	349,529	4,158,742
Gold dust	699	427
Virgin silver	140,531	5,267,278
Coined silver	101	3,737
Total		10,298,360

As I have had occasion to say before, there is yet very little known in a practical way in regard to the mineral wealth of the Argentine Republic, and much that is stated for fact is mere guesswork. I still believe that there are valuable deposits in the provinces of Rioja, San Luis, and Mendoza, but the "big bonanza" which is to make a fortune for somebody has not yet been discovered.

The following little scrap of history in regard to the mines of Rioja has been furnished to the Buenos Ayres Standard and may be interesting:

The Famatina mines seem to have been worked by the Incas, many of the workings being certainly over 200 years old, and yet no tradition exists respecting them. It is well known that mines were systematically worked by the Jesuits of Nonogasta, who are supposed to have taken out vast quantities of treasure, most of it being devoted to the decoration of churches at Rioja and other places. Shortly before the expulsion of the Fathers, in 1776, they destroyed so completely every trace of their working that the exact site is still a mystery.

Mexicana is an extensive region remarkable for gold deposits, comprising a ridge which connects the two mountain chains known as Ampallado and Nevado. Towards the close of the last century some Mexicans or Peruvians found here a gold lode in a spot 13,800 feet above sea-level, and having taken out considerable quantities of gold departed as they had come.

Arragonesa takes its name from two natives of Arragon who used to sell great lots of silver but would never allow any one to follow them to their mine. Just as they were preparing to return to Spain with a large fortune one of them was shot for a spy, the other dying shortly afterwards of grief, and taking his secret to the grave. No one has ever discovered the scene of their labors, although close on 100 years have elapsed.

In 1824, during the mining mania in England, an engineer named French came to report on Famatina, and soon afterwards a company was formed and workmen were sent out. But the civil wars stopped everything. The German superintendent became an estanciero, seeing it impossible to commence mining, and was shot by Quiroga.

There is a variety of metals. The Espino mines, in Mexicana district. are of copper, with an alloy of gold and silver. At Caldera and Cerro Negro are the silver mines of Parchappe and Almonacid. Most of the mines are worked by the indigenous population in a small way, Chilecito and Famatina containing at least 20,000 souls who have no other livelihood. They go up to the mountains with provisions for a couple of months, attack the ore wherever they find it, and live on the proceeds for the rest of the year.

Competent persons in Rioja say that the annual output of the mines is something over $200,000, the labor and expenses not exceeding $60,000. But it is believed that the industry has starved for want of capital and machinery, and that well-directed scientific work would give dividends of 50 per cent. per annum during many years, as on the San Juan del Norte in Brazil. On this account all the mo[illegible] attached to the labors of M. Fouret [illegible] France with [illegible]

silver or 3 cwt. of copper per ton, leaving a margin of profit. In the Tigre district is an old mine of the time of the Incas, which has given silver at intervals.

Heretofore Rioja has been unable to turn its great mining wealth to any profit for three reasons: firstly, that capital and machinery are requisite; secondly, that the remoteness of Famatina and Chilecito placed an obsatcle almost insurmountable; thirdly, that there were not mules enough in the province. Such is the unanimous opinion of disinterested persons who know more on the subject than we do, and it is impossible to refuse to give them a hearing or treat their views as visionary.

In regard to the reported gold discoveries of Southern Patagonia, a full account of which I sent to the Department about a year ago, I can only say that there has yet been very little outcome. Interested persons still insist that there is gold at Cape Virgins; and, under permits from the Argentine Government, various parties are now down there with all the necessary appliances for "gathering it in." Thus far, however, there has arrived nothing here to show for their work; and the locality does not seem to be one where the precious dust would be found in very paying quantities. Still we may yet have a satisfactory confirmation of the first reports of the "find"; and now also comes up to us from Tierra del Fuego a rumor that at the foot of the mountains in the Bay of San Sabastian the gold-hunters of Chili have come upon gold deposits of great richness and promise. There is, however, such an air of unreality about nearly all the reputed gold mines of the Argentine Republic that I put this last report in the strictest quarantine until further developments.

FISHERIES.

In reference to the fisheries of the Argentine Republic there is nothing to be said. There are no fisheries here in the American sense of the word. The coasts from Cape San Antonio to the Straits of Magellan offer the finest opportunities in the world for extensive sea fishing, the varieties of oily and other fish occupying a deservedly high rank in the estimation of all who have any acquaintance with them. Among these are the curbina negra, a very large fish, which somewhat resembles the salmon; the lisa, which is analogous to the mackerel, but larger; the pescadilla, which is something like a shad without the bones; and anchoa, an oily fish which is regarded as the finest to be found on the Argentine coast. The rivers also are everywhere teeming with fish; among which I may mention the perjerey or king's fish, the brotula, the dorado or gold-fish, which grows to an immense size the raia, the bagre, &c. So, likewise, at various points on the southeast coast, are the finest locations that could be desired for oyster-beds, and the bivalve is found in the greatest quantities; but all this wealth remains entirely undeveloped for the simple reason that there is nobody to engage in the business. Now that the Southern Railroad is opened through to Bahia Blanca, the finest bay on the Argentine coasts, whereby fish and oysters can be transported through to Buenos Ayres without trouble and without delay, there is no longer any excuse for the apathy which exists in regard to this most valuable industry. Some years ago the Argentine [illegible] a law which prevents fishing on its coasts without [illegible] Government; but I believe that to [illegible] Government could

ments of wool and sheep-skins from 1875 down to the end of last year as follows:

Shipments of wool and sheep-skins since 1876.

Year.	Wool.		Sheep-skins.	
	Quantity.	Value.	Quantity.	Value.
	Kilograms.		*Kilograms.*	
1876	89, 259, 122	$20, 332, 387	27, 597, 973	$4, 634, 758
1877	97, 310, 463	18, 707, 218	27, 849, 009	4, 064, 754
1878	81, 708, 196	15, 215, 358	27, 848, 592	4, 031, 149
1879	91, 951, 094	22, 330, 388	25, 088, 878	4, 097, 864
1880	97, 145, 801	27, 467, 671	29, 077, 187	5, 455, 327
1881	103, 876, 955	31, 446, 495	22, 339, 591	4, 639, 437
1882	111, 009, 796	29, 978, 960	22, 353, 021	4, 231, 718
1883	118, 403, 668	29, 600, 918	26, 564, 619	5, 035, 886
1884	114, 344, 648	32, 005, 819	24, 938, 623	5, 484, 952
1885	128, 393, 264	35, 950, 111	31, 336, 894	6, 267, 377

Owing to the losses of sheep during the present year, more than 20,000,000 having perished from the floods or from epidemic, it is understood that there will be a deficit in the wool shipments of 1886, though for the same reason the shipments of sheep-skins will be increased.

It will be observed that in 1885 the total shipments of wool and sheep-skins amounted in value to $42,247,488, being a little more than one-half of the entire declared exports for that year. The following table shows the countries to which the shipments of wool and sheep-skins were made:

Shipments for the year 1885.

Country.	Wool.		Sheep-skins.	
	Quantity.	Value.	Quantity.	Value.
	Kilograms.		*Kilograms.*	
Germany	24, 331, 358	$6, 812, 780	1, 592, 057	$318, 611
Belgium	34, 341, 898	9, 615, 731	2, 756, 139	551, 227
Brazil	8, 523	2, 386	391	78
United States	4, 239, 699	1, 187, 115	163, 074	32, 615
France	59, 149, 582	16, 561, 886	20, 883, 900	4, 176, 780
Italy	1, 675, 408	469, 114	752, 826	150, 565
Great Britain	1, 987, 014	556, 364	3, 939, 120	787, 824
Switzerland	132, 888	37, 207	----------	----------
Uruguay	1, 531, 913	428, 935	789, 238	157, 848
Other countries	994, 987	278, 596	460, 149	92, 029
Total	128, 393, 264	35, 950, 111	31, 336, 894	6, 267, 377

The wool shipped as above to the United States was exclusively the Cordoba or carpet wools; the export duty here and the tariff of the United States making it impossible to export the other varieties without loss.

THE SALADERO INDUSTRY.

Owing to the repeal of this export duty on jerked beef, the saladero or slaughtering industry of the Argentine Republic has considerably increased within the last two years. The following table gives the comparison:

Article.	1884.	1885.
Dry hides		
Salted hides		

This shows a total increase of $6,466,528 during 1885; and during the present year the industry has exhibited even greater development, the repeal of the export tax making it possible to ship at paying rates to both European and American markets.

FRESH-MEAT EXPORTS.

The business of shipping frozen mutton carcases to European markets has considerably increased during the last year. There are now several establishments at different points on the rivers devoted especially to this industry. The custom-house returns show that during 1885 there were shipped to England and Italy from the ports of this country 2,862,270 kilograms of frozen mutton carcases, valued at $75,323. During the present year the shipments have very largely exceeded this amount, but I am unable to obtain the exact figures. In regard to the prospects and profits of the business there appears to be some question. The shipments do not seem to meet a ready sale, and in some cases have had to be stored for paying prices. The prices obtained have ranged from 3*d.* to 5¼*d.*, but most sales were the lower figures. Most of the cases sent from this market are not fattened so well as those which go from the States. The flesh is not firm, and in many instances is thin or "plain." The "River Plate Fresh Meat Company," which was the pioneer in the business in this country, has not been able to declare any dividend on the last year's business; but when more economy is practiced in preparing the meat for shipment, and the companies engaged in the business instruct the growers of sheep into the mysteries of fattening the animals properly, the trade may become more promising.

On this subject I find the following in the "European Mail" of a late date:

With the view of improving its financial position, the directors of the River Plate Fresh Meat Company are now making arrangements for opening up a business with continental cities. Two thousand carcases have been sent to Paris and favorably spoken of. Meanwhile the results of the working for the past year are not such as to enable the board to declare a dividend on the ordinary shares. The reasons for this unfortunate state of affairs were set forth by Mr. G. W. Drobble in presiding over the fourth ordinary general meeting on October 13th. It appears that 191,721 sheep were killed, frozen, and shipped to this country by the company between July 1, 1885, and June 30, 1886, as against 187,578 during the previous twelve months, but prices have not been kept up. The average per pound for the year 1884–'85 was 4.475*d.*, and this year it was 4.383*d.* It is a matter of small comfort for the shareholders to know that they are not alone in this reduction. Having seen a statement that a large quantity of River Plate mutton had been condemned as unfit for food, the chairman took occasion to remark that out of the 191,000 carcases imported by the River Plate Fresh Meat Company only 17 had been condemned. The report was adopted, and the writing off 20 per cent. from the initial expenses, 5 per cent. from refrigerating machinery, and 7½ per cent. from the hull of the La Nevera approved.

There is also now a movement on foot to engage in the export, on a large scale, of fine cattle. One party has made an application to the Government for a guarantee on the capital invested in this enterprise, [illegible] lines of steamships with special reference to [illegible] business would be at- [illegible] that

in the Argentine Republic. All the beef that comes to market is fed on green grass entirely, and lacks that firmness and hardness so necessary for a long sea voyage; and I doubt if there would be much left of a grass-fed bullock, no matter how fat he might be, after undergoing the hardships and privations of a crowded transportation to Europe.

FOREIGN NAVIGATION OF THE ARGENTINE REPUBLIC.

The carrying trade of the Argentine Republic with other nations during the year 1885 will be seen from the following resumé, compiled from the figures published by the natural statistical office, to wit:

Movement of foreign tonnage.

Class of vessels.	Arrivals.		Departures.		Total.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
Sailing vessels	4,908	771,583	2,441	600,858	7,349	1,372,441
Steamers	6,671	2,829,726	6,549	2,748,803	13,220	5,578,529
Total	11,579	3,601,309	8,990	3,349,661	20,569	6,950,970
Total in 1884	10,976	3,012,363	8,187	2,852,292	19,163	5,864,413
Increase	603	588,946	803	497,369	1,406	1,086,557

From a study of these figures it will be seen that steam now represents 80 per cent. of the foreign carrying trade of the Argentine Republic, while sailing vessels represent only 20 per cent.

To show the increase which has taken place in steam navigation during the last ten years, I append the following suggestive figures:

Year.	Steam.	Sail.	Year.	Steam.	Sail.
	Per cent.	*Per cent.*		*Per cent.*	*Per cent.*
1876	68	32	1881	71	29
1877	66	34	1882	73	27
1878	68	32	1883	75	25
1879	71	29	1884	77	23
1880	76	24	1885	80	20

The following tables show the arrivals and departures of sailing vessels at and from the different ports of the Argentine Republic:

Arrivals and departures of sailing vessels to and from each port.

To and from—	Arrivals.		Departures.	
	No.	*Tons.*	*No.*	*Tons.*
Bahia Blanca	19	9,557	17	7,859
Baradero	16	177	11	4,467
Buenos Ayres	3,557	582,835	1,406	415,935
Compana	97	16,964	68	17,951
Concepcion	32	1,957	32	935
Concordia	334	13,174	253	12,771
Corrientes	49	1,698	12	752
Gualeguay	31	4,112	41	9,403
Gualeguaychú	74	6,208	74	3,493
La Paz	8	389	12	1,226
Monte Careros	66	1,091	43	[illegible]
Parana				

The arrivals and departures of steamers at and from the different ports of the Argentine Republic will be seen from the following table:

Arrivals and departures of steamers to and from each port.

To and from—	Arrivals.		Departures.	
	No.	*Tons.*	*No.*	*Tons.*
Bahia Blanca	4	5,945	2	2,938
Bella Vista	243	66,690	245	63,629
Buenos Ayres	1,687	1,043,512	1,542	989,326
Concepcion	536	119,425	596	219,862
Concordia	819	227,239	804	233,880
Corrientes	252	65,718	197	50,406
Esquira	171	46,058	118	298
Goya	247	53,383	237	[illegible]
Gualaguaychú	451	160,646	537	178,068
La Paz	271	68,536	242	72,184
Monte Caseros	164	11,551	157	11,422
Paraná	259	67,459	225	60,724
Rosario	450	411,913	401	296,545
San Nicolas	104	125,221	99	112,357
Zarate	1	1,278	3	3,827
Other ports	1,012	283,152	1,144	362,580
Total	6,671	2,829,726	6,549	2,748,803

From the two foregoing tables it will be seen that of the total foreign shipping 44 per cent. belonged to Buenos Ayres; 12 per cent. to Rosario; 7 per cent. to Concordia; 6 per cent. to Concepcion, and the balance to a dozen smaller ports.

The following table shows the arrival and departures of sailing vessels from and to each country:

Arrivals and departures of sailing vessels from and to each country.

To and from—	Arrivals.		Departures.	
	No.	*Tons.*	*No.*	*Tons.*
Africa	37	13,455	15	5,086
Germany	21	9,659	11	3,534
West Indies			259	130,782
Austria	21	8,293	2	1,882
Belgium	128	16,407	21	8,346
Brazil	33	21,611	211	65,614
Canada	2	528	2	1,627
Chili	61	27,751	47	29,071
Spain	344	183,402	28	8,036
United States	64	24,042	311	117,038
France	9	1,121	44	20,287
East Indies	34	15,732	22	11,553
Italy			14	5,752
Mexico	2	1,204	3	1,054
Holland	197	25,746	1	478
Paraguay			73	7,993
Peru	3	1,512	1	235
Portugal	462	210,153	5	1,672
Great Britain	10	1,865	314	103,269
Sweden	3,449	205,466	1	179
Uruguay	31	3,636	1,100	58,478
			2	708
			44	18,884
			3,441	600,858

The following table gives the arrivals and departures of steamers from and to each country during the year 1885:

Arrivals and departures of steamers from and to each country.

To and from—	Arrivals.		Departures.	
	No.	*Tons.*	*No.*	*Tons.*
Germany	116	171,312	120	175,975
Belgium	49	61,180	102	132,249
Brazil	347	52,092	370	70,758
Spain	37	44,473	16	21,895
United States	5	5,880	14	17,504
France	125	182,083	191	310,625
Italy	83	141,506	60	103,995
Holland	.....	.....	2	2,418
Paraguay	1,088	297,437	1,106	298,951
Great Britain	327	444,149	217	292,019
Uruguay	4,493	1,429,523	4,345	1,309,594
Other countries	1	91	6	6,820
Total	6,671	2,829,726	6,549	2,748,803

From the last two tables it appears that 43 per cent. of the foreign shipping of the Argentine Republic was with Uruguay, 13 per cent. with Great Britain, 9 per cent. with Paraguay, 8 per cent. with France, 5 per cent., respectively, with the United States and Germany, and with all other countries 17 per cent.

The arrivals and departures of sailing vessels, according to flag, will be seen from the following table:

Arrivals and departures of sailing vessels according to flag.

Flag.	Arrivals.		Departures.	
	No.	*Tons.*	*No.*	*Tons.*
German	111	30,797	113	37,558
Brazilian	88	7,528	55	4,190
Spanish	79	17,253	71	16,861
French	8	1,958	6	2,052
English	420	197,514	323	168,839
Italian	251	103,597	229	106,355
Paraguayan	118	7,387	35	3,185
Uruguayan	1,481	62,519	512	18,251
United States	130	71,612	136	86,164
Argentine	1,871	115,106	595	26,004
Other nations	351	156,312	366	131,395
Total	4,908	771,583	2,441	600,858

The arrivals and departures of steamers, according to flag, will be seen from the following table:

Arrivals and departures of steamers according to flag.

Flag.	Arrivals.		Departures.	
	No.	*Tons.*	*No.*	*Tons.*
German	117	171,443	121	173,260
Belgian	30	41,607	23	28,279
Brazilian	312	58,247	303	62,476
Spanish	14	15,381	13	[illegible]
French	[illegible]			

From the two preceding tables it will be observed that of the entire foreign shipping 28 per cent. was under the English flag; 24 per cent. under the Argentine flag; 17 per cent. under the French flag; 6 per cent. under the German and Italian flags, respectively; 5 per cent. under the Uruguayan flag; and 14 per cent. under all other flags. I may make the same observation in reference to the above returns of navigation which I made in a former report, that a very large amount of the foreign shipping, credited to England, France, and Uruguay, consists of the round voyages made by river steamers under their respective flags, running on the upper rivers between Buenos Ayres and ports of Paraguay and Buenos Ayres, and ports of Uruguay; while the entire foreign shipping credited to the Argentine Republic consists of various lines of steamers under the Argentine flag, trading between the ports of this country and those of Paraguay and Uruguay. The Argentine Republic has no ocean-going craft.

AMERICAN SHIPPING.

The same story in regard to a line of steamers between the United States and the Argentine Republic, which has been repeated for the last twelve years, still continues to be heard. A month ago it was even cabled to Buenos Ayres that the pioneer steamer was en route; but the siren song was only a deception. The steamer came no farther in this direction than Rio Janeiro. The impatience with which, through all these years, the Argentine people have been waiting for the inauguration of steam navigation between New York and Buenos Ayres has at last settled into a persistent doubt on the subject; and, in the absence of arrivals from New York, future assurances in reference to the long-expected steam line must be "put in quarantine." This Government, however, is ready to vote a subsidy, just so soon as the United States Congress will set the example.

It will be seen from the foregoing tables that the total number of sailing vessels under the American flag which arrived at the different ports of the Argentine Republic during the year 1885 was 130; while the total number of arrivals of sailing vessels from the United States for the same time was 344; in other words, nearly two-thirds of the sailing vessels which arrived in the River Plate with cargoes for the United States were under foreign flags. This is more than the previous year, when out of a total number of 293 arrivals from the United States 139 carried the American flag. At this rate it will not be long before the flag of our country is entirely driven from the foreign carrying trade. Where does the fault primarily lie? With ourselves. As I have time and again said, our merchants and ship-brokers will persist in chartering, in most cases, the most miserable old hulks that England and Norway possess, for the simple reason that they carry cheap. It is true that a large percentage of their cargoes are damaged in the transit; but what difference does it make to them, so long as the United States underwriters good naturedly pay the damages? If our underwriters [illegible] anxious for business and used more judgment in these [illegible] unseaworthy bot-

The custom-house valuation of the imports for the year 1885 amounted to $92,221,969, against $94,056,144 in 1884, a reduction of $1,834,175. The custom-house valuation of the exports amounted to $83,879,100, against $68,029,836 in 1884, an increase of $15,849,264. I regret to observe, however, that the imports continue to exceed the exports, only, however, this year, by $8,342,869.

The imports and exports of 1885, subject to and free of duty for 1885, compared with those of 1884 and 1883, are as follows:

Commerce.	1883.	1884.	1885.
Imports subject to duty	$67, 721, 783	$80, 098, 754	$73, 039, 308
Imports free of duty	12, 714, 045	13, 957, 390	19, 182, 661
Exports subject to duty	51, 592, 824	52, 234, 950	62, 568, 191
Exports free of duty	8, 615, 152	15, 794, 886	21, 310, 909
Total	140, 643, 804	162, 085, 980	176, 101, 069

The total imports and exports of the Argentine Republic from 1861 to 1885, inclusive, a period of twenty-five years, are as follows:

Imports for twenty-five years	$1, 227, 241, 595
Exports for twenty-five years	1, 042, 655, 600
Excess of imports	184, 585, 995

IMPORTS AND EXPORTS OF EACH CUSTOM-HOUSE.

From the returns published by the national statistical office I compile the following table, which shows the imports and exports of each custom-house in the Republic:

Imports and exports at each custom-house.

Custom-house.	Imports.	Exports.	Total.
Ajó	$8, 591	$546, 245	$554, 836
Alvear	16, 974	14, 418	31, 392
Baradero	1, 789	361, 917	363, 706
Bahia Blanca	548, 292	670, 525	1, 218, 817
Bella Vista	92, 352	16, 987	109, 339
Buenos Ayres	69, 787, 044	51, 996, 527	121, 783, 571
Campana	4, 064, 268	1, 226, 944	5, 291, 212
Chupat	1, 861	.....	1, 861
Concepcion	148, 084	96, 696	244, 780
Colon	70, 622	504, 751	575, 373
Concordia	1, 019, 754	3, 549, 047	4, 568, 801
Corrientes	151, 357	55, 301	206, 658
Diamente	13, 284	86, 145	99, 429
Empredado	1, 051	153, 256	154, 307
Esquina	38, 764	40, 535	79, 299
Formosa	6, 262	.....	6, 262
Goya	83, 592	50, 002	133, 594
Galeguay	122, 024	1, 401, 569	1, 323, 593
Galeguay chú	161, 817	1, 272, 856	1, 434, 673
Helvicia	4, 253	16, 152	20, 405
Jujuy	1, 404, 443	205, 440	1, 609, 883
La Paz	71, 763	169, 627	241, 390
Mar del Plata	.....	96, 245	96, 245
Mendoza	11, 011	1, 531, 604	1, 542, 615
Monte Caseros	25, 902	76, 336	102, 238
Pavaná	442, 941	304, 368	747, 309
Paso de los Libres	41, 139	54, 278	95, 417
Patagones	.....	11, 186	11, 186
Rosario	11, 924, 403	12, 430, 442	24, 354, 845
Salta	150, 208	135, 238	285, 446
Santa Fé	407, 098	761, 804	1, 168, 902
San Gerónimo	293	16, 024	16, 317
San Juan			

From this table it will be seen that Buenos Ayres last year had 75.7 per cent. of the imports and 62 per cent. of the exports, and 69 per cent. of the entire foreign commerce of the Argentine Republic; and that Rosario, standing next, had 12.9 per cent. of the imports, 14.8 per cent. of the exports, and 13.8 per cent. of the entire foreign commerce; San Nicolas, Concordia, and other minor ports standing for the rest.

MOVEMENTS OF ARGENTINE TRADE ACCORDING TO NATIONALITY.

The foreign commerce of the Argentine Republic for 1885 was distributed among the following countries, to wit:

Countries.	Imports.	Exports.	Total.
Africa	.....	$42,080	$42,080
Germany	$7,262,999	8,512,443	15,775,442
West Indies	78,527	1,433,584	1,512,111
Belgium	7,463,893	14,883,506	22,347,399
Bolivia	1,412,718	248,800	1,661,518
Brazil	2,206,612	2,169,700	4,376,402
Canada	815,501	.....	815,501
Chili	45,074	2,494,256	2,539,330
Spain	3,189,331	2,241,873	5,431,206
United States	7,006,719	5,563,841	10,570,560
France	14,545,195	24,164,829	37,710,024
Italy	4,207,946	2,448,014	6,655,960
Holland	545,522	67,009	612,531
Paraguay	1,471,783	160,121	1,631,904
Portugal	95,234	224,126	318,360
Great Britain	35,375,628	12,816,341	48,191,969
Sweden	32,764	37,207	69,971
Uruguay	4,241,700	3,367,866	7,609,566
Other countries	2,225,823	3,003,412	5,229,235
Total	92,221,969	83,879,100	176,101,069

COMPARISONS BETWEEN 1884 AND 1885.

If we compare the trade returns of the Argentine Republic of 1885 with those of 1884 we will find that the imports have increased from the following countries:

IMPORTS.

Country.	Increase.	Country.	Increase.
West Indies	$77,726	Portugal	$19,043
Belgium	214,106	Chili	33,841
Bolivia	1,245,619	Great Britain	4,647,934
Canada	247,850	Sweden	17,491
Paraguay	67,739		

From the following countries the importations have diminished:

	Decrease.

EXPORTS.

The exports from the Argentine Republic for 1885, compared with those of the previous year, have increased to the following countries:

Country.	Increase.	Country.	Increase.
Africa	$26,116	France	$1,646,458
Germany	698,730	Italy	643,530
West Indies	635,054	Holland	65,461
Belgium	3,561	Paraguay	66,174
Bolivia	26,056	Portugal	164,253
Brazil	707,355	Great Britain	4,604,904
Chili	413,333	Sweden	37,207
Spain	724,197	Uruguay	1,257,017
United States	1,498,993	Other countries	712,777

And during the same period it has not decreased from any country.

TOTAL TRADE.

The total trade, including imports and exports, for 1885, compared with that of 1884, has increased from the following countries:

Country.	Increase.	Country.	Increase.
Africa	$25,116	United States	$1,050,880
Germany	92,799	Italy	854,832
West Indies	712,780	Paraguay	123,911
Bolivia	1,281,675	Portugal	233,296
Brazil	581,101	Great Britain	10,252,838
Canada	247,850	Sweden	54,698
Chili	445,174		

And the following countries show a decrease in the total amount of their trade with the Argentine Republic:

Country.	Decrease.	Country.	Decrease.
Spain	$788,262	Uruguay	$184,626
France	593,937	Other countries	98,945
Holland	494,208		

From the tables of imports and exports, it will appear that for the year 1885, 38.4 per cent. of the import trade of the Argentine Republic was with Great Britain, 15.8 per cent. with France, 8 per cent. with Belgium, 7.9 per cent. with Germany, and 7.6 per cent. with the United States.

It will also appear that 28.8 per cent. of the exports went to France, 17.7 per cent. to Belgium, 15.3 per cent. to Great Britain, 10.2 per cent. to Germany, and 6.6 per cent. to the United States.

It will further appear that 27.4 per cent. of the total commerce of the Argentine Republic for 1885

PERCENTAGE OF TRADE FOR TEN YEARS.

As a point of some interest I subjoin the following table, which shows the relative course of trade of the Argentine Republic with each country during the last ten years:

Country.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
Germany	3.9	3.9	4.0	3.9	4.7	6.6	7.9	8.4	9.7	9.0
West Indies	1.4	1.4	1.0	1.6	1.6	1.0	1.3	0.9	0.5	0.9
Belgium	19.0	17.4	15.2	18.3	16.2	15.5	14.1	11.0	13.7	12.7
Bolivia	0.7	0.7	0.4	0.7	0.8	0.5	0.4	0.2	0.2	0.9
Brazil	4.1	5.2	5.0	6.0	4.2	3.9	3.5	2.8	2.3	2.5
Chili	4.7	4.6	3.3	1.6	1.7	1.6	1.3	1.6	1.3	1.4
Spain	3.9	3.7	4.1	3.1	3.5	4.1	3.5	3.6	3.8	3.1
United States	5.2	5.7	6.8	8.2	8.0	7.3	6.6	6.0	7.1	7.1
France	20.5	20.4	23.0	22.0	23.4	23.7	23.5	25.9	24.2	22.0
Italy	5.1	4.0	4.2	4.6	4.5	4.6	3.8	3.6	3.6	3.7
Holland	0.7	0.7	0.6	0.3	0.3	0.4	0.9	0.4	0.7	0.4
Paraguay	1.2	1.4	1.2	1.3	0.8	1.2	1.0	1.1	0.9	0.9
Great Britain	19.5	18.0	19.1	17.0	17.1	17.5	22.3	26.2	23.4	27.4
Uruguay	3.8	5.3	3.8	3.9	4.9	4.6	4.1	4.5	4.8	4.3
All other countries	6.3	7.6	8.3	7.3	8.3	7.5	5.8	3.8	3.8	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

These relative figures show that while there has been a remarkable uniformity in the course of the trade of the Argentine Republic during the last ten years, Belgium appears to be the only country that has decidedly lost her position; and that, while England and France have continued to maintain and even increase their relative ascendency, the United States and Germany, in spite of the annually increasing bulk of the total trade, have shown quite a regular progression of increase in their percentage.

DETAILS OF THE FOREIGN COMMERCE OF THE ARGENTINE REPUBLIC.

I have compiled the following table from the official figures of the Argentine national statistical office; they purport to give the amount and custom-house value of each article of import and export of the Argentine Republic for the year 1885:

IMPORTS.

Articles.	Quantity.	Official value.
Animals.		
Asses ..... number	15	$440
Horses ..... do	487	21,708
Hogs ..... do	3	200
Sheep ..... do	15,455	62,411
Mules ..... do	2	20
Horned cattle ..... do	2,007	42,631
Total	.....	127,410

IMPORTS—Continued.

Articles.		Quantity.	Official valve.
Groceries and comestibles—continued.			
Fish, dried	kilograms	612, 240	$95, 762
Cocoa	do	122, 194	31, 212
Cinnamon	do	10, 175	5, 413
Coffee	do	2, 439, 476	750, 964
Preparations of meat		.....	68, 004
Barley	kilograms	77, 799	8, 140
Chocolate	do	90, 546	90, 546
Cocoa	do	59, 695	38, 588
Confectionery and dulces		.....	108, 564
Spices and condiments		.....	487, 948
Farina	kilograms	2, 149, 848	107, 166
Maccaroni	do	39, 309	7, 471
Vegetables, preserved	do	54, 262	17, 627
Fruits, dried and preserved	do	.....	340, 070
Fruits, fresh		.....	49, 948
Flour, wheat	kilograms	2, 676	214
Flour of other grain	do	94, 231	17, 181
Hams	do	98, 969	54, 176
Vegetables, dried	do	.....	141, 293
Butter	do	1, 104	572
Lard	do	137; 101	43, 893
Hard bread and crackers, &c	do	37, 461	9, 642
Fish, preserved		.....	462, 314
Fish, fresh		.....	760
Cheese	kilograms	1, 009, 104	595, 322
Sausages	do	40, 548	26, 513
Tea	do	309, 394	309, 394
Bacon	do	1, 560	775
Wheat	do	16, 690	667
Yerba:			
Paraguayan	do	4, 355, 349	761, 378
Brazilian	do	9, 830, 877	1, 267, 207
Total		.....	12, 020, 034
Liquors, &c			
Mineral waters, bottles	dozens	17, 721	43, 082
Beer	liters	95, 299	39, 538
Beer, bottles	dozens	204, 896	461, 978
Cider, bottles	do	547	1, 159
Brandy, bottles	do	64, 619	318, 768
Gin	liters	1, 317, 650	192, 139
Gin, bottles	dozens	20	58
Caña	liters	209, 402	29, 312
Alcohol and other liquors	do	2, 070, 490	353, 790
Alcohol and other liquors, bottles	dozens	132, 839	626, 797
Sirups		.....	450
Wines:			
Champagne, bottles	dozens	7, 011	55, 466
Sherry, bottles	do	1, 013	5, 908
Port, bottles	do	13, 081	77, 244
Bordeaux, bottles	do	16, 493	65, 490
Other kinds	do	39, 432	116, 690
Sherry, in casks	liters	35, 538	17, 550
Port, in casks	do	102, 896	49, 030
Bordeaux, in casks	do	22, 525, 526	2, 340, 280
Other kinds, in casks	do	34, 491, 340	3, 378, 934
Vinegar	do	100, 991	7, 039
Total		.....	8, 180, 702
Tobacco.			
Cigars:			
Havana	kilograms	12, 832	102, 349
Other kinds	do	179, 231	217, 834
Cigarettes	do	4, 377	5, 607
Tobacco in the leaf:			
Havana	do	55, 672	27, 450
Other kinds			

IMPORTS—Continued.

Articles.	Quantity.	Official value.
Woven goods, &c.		
Oil cloths.....kilograms..	1,315	$264
Matting.....meters..	159,934	39,908
Sacking.....	.....	65,333
Shag.....meters..	361,753	324,277
Pack cloth.....kilograms..	7,029,977	1,439,557
Pack thread.....do....	1,604,846	1,317,148
Felt.....meters..	57,717	43,195
Sail cloth.....kilograms..	278,227	305,294
Cassimeres.....do....	462,375	995,672
Do.....meters..	191,342	292,134
Ribbons.....	.....	147,169
Cording.....	.....	13,233
Laces.....	.....	363,440
Thread:		
In carrots.....kilograms..	93,219	36,158
Sewing.....	.....	336,866
Silk.....	.....	247,826
Impermiable cloth.....kilograms..	113,824	66,238
Cordage.....	.....	241,581
Duck.....kilograms..	789,628	426,307
Wicking.....do....	126,070	126,121
Billiard cloth.....	5,290	19,149
House linen.....	.....	89,089
Soles for alpargata shoes.....dozen..	99,828	49,373
Do.....kilograms..	792,649	247,400
Cotton goods.....do....	4,304,207	3,158,289
Do.....meters..	3,262,802	317,304
Hempen goods.....kilograms..	86,353	34,165
Do.....meters..	360	115
Linen goods.....kilograms..	132,508	196,535
Do.....meters..	378,507	119,558
Woolen goods.....kilograms..	465,882	1,070,615
Do.....meters..	227,225	85,697
Mixed goods.....kilograms..	806,996	1,494,701
Do.....meters..	922,838	313,837
Silk goods.....kilograms..	22,892	332,198
Do.....meters	73,651	21,904
Other woven goods.....kilograms..	140,349	42,964
Do.....meters..	8,997	3,149
Silk velvets.....kilograms..	5,274	63,298
Cotton goods made up, not otherwise specified.....	.....	621,188
Hempen goods made up, not otherwise specified.....	.....	110,869
Linen goods made up, not otherwise specified.....	.....	189,457
Woolen goods made up, not otherwise specified.....	.....	419,437
Mixed goods made up, not otherwise specified.....	.....	337,484
Silk goods made up, not otherwise specified.....	.....	291,801
Other woven goods made up, not otherwise specified.....	.....	594,777
Chintz and calicoes.....kilograms..	1,546,655	1,962,902
Total.....	.....	19,014,976
Clothing, &c.		
Shirts.....dozens..	23,897	211,808
Undershirts.....do....	74,893	297,316
Drawers.....do....	8,048	55,913
Cravats.....	.....	71,709
Gowns and skirts.....dozens..	6,365	40,103
Cuffs and collars.....do....	19,532	36,059
Stockings.....do....	504,643	629,309
Pocket handkerchiefs.....do....	104,236	133,074
Towels.....do....	9,638	26,575
Men's ready-made clothing.....	.....	761,479
Umbrellas and parasols.....	.....	50,416
Hats and caps.....	.....	507,329
.....	.....	2,821,090

IMPORTS—Continued.

Articles.		Quantity.	Official value.
Drugs and chemicals—Continued.			
Ammonia	kilograms..	4,022	$1,310
Indigo	do....	895	1,686
Sulphur	do....	55,908	3,780
Tar	do....	164,981	26,759
Varnish	liters..	80,606	45,404
Soda	kilograms..	11,345	939
Borax	do....	21,469	6,439
Chloride of lime	do....	23,941	2,385
Magnesia	do....	990	397
Carbonate of soda	do....	108,333	9,494
Glue	do....	71,884	14,424
Coloring matters		.....	245,731
Fire-crackers		.....	54,436
Stearine	kilograms..	143,366	31,130
Essences		.....	18,648
Specifics for sheep scab		.....	234,736
Phosphorus	kilograms..	818,545	98,277
Gums	do....	144,797	43,147
Glycerine	do....	3,910	2,057
Iodine of potassium	do....	173	694
Soap, common	do....	55,720	16,110
Medicinal preparations		.....	576,443
Perfumery		.....	202,353
Potassium	kilograms..	27,660	5,589
Powder	do....	44,614	25,089
Pharmaceutical products		.....	98,679
Chemical products		.....	180,554
Calcined soda	kilograms..	1,802,959	104,101
Sulphate of iron	do....	19,215	902
Sulphate of magnesia	do....	1,558	110
Sulphate of quinine	do....	1,034	46,530
Printing ink	do....	46,888	12,961
Vasaline, common	do....	730	357
Plaster Paris		101,109	3,313
Total		.....	2,497,349
Lumber and wooden ware.			
Pine lumber	square meters..	9,550,329	4,219,611
Walnut lumber	do....	279,015	80,386
Other lumber		.....	451,945
Trunks	number..	2,615	5,827
Carts and carriages	do....	248	40,403
Staves and casks	do....	23,237	27,485
Musical instruments		.....	76,285
Boats and launches	number..	24	104,432
Furniture in general		.....	420,581
Pianos	number..	926	212,121
Canes		.....	13,616
Other wooden articles		.....	254,113
Total		.....	5,906,805
Paper.			
Writing paper	kilograms..	341,637	98,433
Drafting paper	do....	10,618	5,561
Printing paper	do....	2,351,383	593,679
Wall paper	do....	226,250	95,691
Wrapping paper	do....	1,495,717	340,284
Cover paper	do....	10,084	4,499
Cigarette paper	do....	187,177	125,150
Drying paper	do....	12,246	4,348
Sand-paper	do....	5,637	15,642
Albums		.....	9,171
Playing cards	gross..	3,737	33,414
Pasteboard	kilograms..	331,859	50,726
Papier maché		.....	172,909
Other manufactures of paper		.....	147,250
Blank books		.....	125,404
Printed books		.....	311,760
Music	kilograms..	4,958	4,958

IMPORTS—Continued.

Articles.		Quantity.	Official value.
Leather, &c.—Continued.			
Leather gloves			$36, 221
Harness			67, 266
Other manufactures of leather			84, 600
Skins of various kinds			60, 326
Leather of various kinds			653, 686
Total			1, 513, 709
Iron and its manufactures.			
Wire for fencing	kilograms	22, 359, 663	1, 514, 374
Fire-arms	thousand	33, 444	*193, 873*
Needles	kilograms	1, 904, 507	21, 928
Wire, not otherwise specified			197, 375
Kitchen utensils	kilograms	2. 505, 903	296, 394
Nails			*224, 234*
Chains	kilograms	104, 648	61, 539
Iron safes			25, 702
Iron piping	kilograms	35, 100	198, 593
Stoves and stove-pipes	do		5, *324*
Cutlery		249, 965	287, 027
Elastic springs	kilograms	3, 592, 039	39, 439
Iron in bars	do		*180, 665*
Iron ornaments		33, 483, 837	1, 478, 310
Iron and steel unworked	kilograms		3, 384, 984
Iron tools			346, 025
Iron furniture	number	8, 493	*28, 627*
Iron joists and columns	do	2, 792	382, 359
Plows	do	145	90, 328
Reapers			471, 522
Thrashing-machines		2, 656	*205, 913*
Shovels, spades, and hoes	number	15, 650	89, 396
Other implements	do	144	116, 351
Pumps	do		*26, 747*
Sewing-machines			241, 745
Lithographic and printing presses			54, 166
Machinery and motors, not otherwise specified			1, 167, 096
Other manufactures of iron			*126, 321*
Total			11, 468, 894
Materials for construction.			
Materials for water-works			1, 831
Materials for railways			10, 282, 995
Materials for gas-works			*71, 307*
Materials for mines			9, 230
Materials for port works			1, 744
Materials for drainage works			*342, 134*
Materials for works at La Plata			795, 144
Materials for telegraphs			130, 268
Materials for telephones			3, 218
Materials for tramways			*105, 020*
Materials for sugar-mills			97, 176
Total			11, 840, 067
Metals and their manufactures.			
Jewelry			491, 408
Copper and brass, unworked	kilograms	59, 214	33, 617
Copper and brass, manufactured			82, 800
Copper for coining	kilograms	668	267
Tin composition	do	158, 075	40, 253
Tin composition, manufactured			1, 788
Scientific instruments	kilograms	1, 919, 449	53, 339
			35, 990
			199, 797
			30, 056
			253, 499
			52, 020

IMPORTS—Continued.

Articles.		Quantity.	Official value.
Metals and their manufactures—Continued.			
Printing type			$43,846
Zinc	kilograms	86,386	109,339
Zinc manufactured	do	1,054,618	4,503
Total			4,075,996
Stone, glass, and ceramic products.			
Tiles			309,192
Glass bottles	thousand	18,135	66,981
Lime	do	223,184	2,567
Crystals for watches, &c	hectoliters	3,939	4,526
Glassware			289,639
Lamps			254,988
Crockery ware			275,277
Marbles and alabaster, unworked			52,394
Marbles and alabasters, cut			79,042
Marbles and alabasters, set			9,653
Mill stores			915
Precious stones, unset			184,356
Lithographic stones	kilograms	351,336	7,583
Grindstones			11,057
Stones for constructions			353,040
Tiles for roofing	square meters	32,761	12,413
Porcelain ware			165,121
Tiles for flooring	thousand	3,974	183,594
Hydraulic cement	kilograms	20,544,222	472,632
Glass and crystal plate	square meters	521,058	159,862
Glass and crystal mirrors			133,070
Total			3,027,902
Combustibles, &c.			
Stearine candles			100,264
Other candles	kilograms	353,999	18,460
Stove coal	do	61,694	2,770,471
Coke	do	268,073,260	7,485
Wax matches		440,261	75,719
Wooden matches		95,818	6,356
Kerosene		19,258	476,452
Total		5,161,799	3,455,207
Various manufactures, &c.			
Fancy articles			1,128,170
Pitch	kilograms	284,581	19,585
Benzine		359	125
Shoe blacking			27,711
Buttons	gross	287,991	107,892
Corks	kilograms	132,208	54,362
Sponges			6,550
Boxes			3,778
Gutta-percha articles			8,728
Toys			125,638
Pencils			17,160
Hops	kilograms	31,398	21,893
Works of art			57,335
Religious ornaments			9,965
Rosin	kilograms	1,975,636	95,704
Straw, rushes, &c			101,003
Steel pens	gross	34,437	8,718
Plants and shrubs			14,691
Salt	hectoliters	474,994	294,678
Leeches			628
Writing inks	kilograms	55,720	9,559
Apothecary utensils, &c			29,783
Various articles			681,806
Total			2,826,468
Total importations			

EXPORTS.

Articles.		Quantity.	Official value.
Live animals:			
Asses	number	11,316	$22,632
Horses	do	3,251	36,260
Hogs	do	2	4
Sheep	do	42,235	58,552
Mules	do	6,685	106,960
Horned cattle	do	96,175	2,345,313
Animal oils	kilograms	197,486	29,622
Horns, ox	do	1,142,120	159,896
Horns, rams	do	118,473	2,369
Bran	do	5,758,090	87,482
Peas	do	39,859	1,196
Canary seed	do	519,250	31,155
Preserved meat and jerked beef	do	32,055,835	4,204,077
Frozen sheep carcasses	do	2,862,270	75,323
Stove coal	do	274,370	2,743
Vegetable black	hectoliters	67,690	67,690
Lime	kilograms	5,939	4,335
Barley	do	2,109,368	42,189
Bones and bone ash	do	35,423,768	782,464
Hair	do	2,009,298	1,004,649
Wax	do	2,456	859
Copper in bars	do	170,014	67,996
Goat skins	do	1,744,772	1,081,762
Kid skins	do	320,525	641,050
Carpincho skins	do	828	414
Sheep skins	number	31,336,894	6,267,377
Nutria skins	do	322,901	193,737
Ox hides, dry	do	1,931,092	7,511,919
Ox hides, salted	do	811,679	4,488,204
Horse hides, dry	do	43,770	65,651
Horse hides, salted	do	329,595	682,260
Various skins	do		69,665
Joists and sleepers	do	13,490	40,470
Ñandubay posts	kilograms	34,008	4,421
Fruit	do		21,922
Hide cuttings	do	1,235,524	86,485
Guano	do	765,265	21,187
Flour	do	7,447,077	521,295
Old iron	do	80,000	160
Wool	do	128,393,264	35,950,111
Linseed	do	69,426,104	3,471,305
Hard woods	do		190,734
Corn (maize)	number		3,957,191
Peanuts	kilograms	197,859,612	89,182
Split ñandubay posts	do	2,229,557	66,347
Copper, mineral	do	221,157	16,055
Lead, mineral	do	86,962	6,334
Honey	do	35,497	706
Potatoes	do	7,098	19,335
Baled hay	number	483,379	165,587
Pepsin	do	13,765,011	56,548
Empty casks	kilograms	56,548	76
Pickets	do	76	41,466
Beans	do	82,932	1,131
Lead in pigs	do	22,611	2,330
Ostrich feathers	do	19,130	60,741
Cheese	do	34,710	2,926
Dried blood	do	14,630	14,082
Alfalfa seed	do	445,090	296
Turnip seed	number	7,397	24,245
Grease and tallow	kilograms	393,440	3,489,169
Tanned hides	do	23,260,234	4,912
Tobacco		614	290
Wheat		2,898	3,139,736
Other articles of national production		78,493,392	434,864
Various re-exported articles			252,795
			82,289,507

subject in the present report. A mere restatement of the course of trade during the last few years is all that is required to show the stumbling block in the way of a satisfactory condition of the monetary affairs of the country. The following are the imports and exports of the Argentine Republic from 1879 to 1885, inclusive:

Year.	Imports.	Exports.	Total.
1879	$46,362,593	$49,357,558	$85,721,150
1880	45,535,880	38,380,787	103,916,667
1881	55,705,927	57,938,272	113,644,199
1882	61,246,045	60,388,939	121,634,984
1883	80,435,828	60,207,976	140,643,804
1884	94,056,144	68,029,836	162,085,980
1885	92,221,969	81,288,475	176,101,069

The years from 1879 to 1882, inclusive, were marked by quite a satisfactory condition of trade, the exports during that period quite equaling the imports, and thus not requiring any active drain of money from the country. Since then, however, there has been no proper balance between what the country bought abroad and what it sold, the exports running far behind the imports, and the imports persistently exceeding the limit of commercial safety. The balances against the country which have had to be met for the last three years were as follows:

Year.	Balance against the country.
1883	$20,227,852
1884	26,027,308
1885	10,933,594
Total in three years	57,188,754

In the face of these figures, it is not surprising that the banks could not furnish exchange in sufficient quantities to meet the demand; nor ultimately, when they had drained themselves of their balances abroad, that they had not the gold to exchange over their counters for their bank notes. The suspension of specie payments which followed was a natural consequence of the situation; and there will continue to be a suspension of specie payments just so long as this excessive overtrading continues. The loans which have been made by the Government, as I predicted, have had the effect to tide over the commercial collapse which overtook the country two years ago; but the business outlook is but little better now than it was then. It is true, the excess of imports over the exports in 1885 was not so great by half as in the two previous years, and there has been an increase in the value of the exports of over thirteen millions of dollars—a very gratifying indication of the wealth and recuperative energies of the people—but the imports are still out of proportion to a healthy condition of trade. The country continues to receive more from abroad than the actual wants of the people require. The Argentine Republic does not possess the

broken arithmetical progression which has taken place in unproductive imports:

Articles.	1881.	1882.	1883.	1884.	1885.
Food of all kinds	$6,888,210	$10,466,507	$11,957,555	$15,314,819	$12,020,034
Liquors	7,795,967	6,905,886	9,316,813	11,439,358	8,080,702
Tobacco	1,005,488	978,500	1,233,201	1,114,104	1,305,481
Cotton, woolen, and silk goods	10,229,371	14,000,148	16,482,772	16,836,772	19,014,976
Total	25,919,036	32,351,041	38,990,207	44,705,053	40,520,193

The manner in which the excessive importations of cotton, woolen, and silk goods have increased in the last five years is especially worthy of notice.

EXPORTS.

In regard to exports, from which we in great part judge of the prosperity of a country as showing the surplus products of industry, the returns of 1885 exhibit a very gratifying increase over those of the previous year. The increase in the most important items of export is seen in the following table:

Articles.	Increase.	Articles.	Increase.
Bones and bone ash	$160,845	Jerked beef	$1,747,080
Sheep-skins	782,425	Live cattle	534,480
Goat-skins	702,082	Linseed	1,771,723
Ox hides (dry)	1,617,613	Corn (maize)	1,682,990
Ox hides (salted)	1,564,602		
Wool	3,944,292	Total	15,847,469
Grease and tallow	1,339,337		

The tables of exports show that in 1885 wool stood for about 45 per cent. of the entire amount; hides for 12.5 per cent., and sheep skins for 8 per cent.

COMMERCE OF THE ARGENTINE REPUBLIC WITH EACH COUNTRY.

The commerce of the Argentine Republic with the different countries with which it is engaged in trade, for the year 1885, shows pretty much the same general features that the trade returns of 1884 present. As then, I proceed to a closer inspection of the principal classes of merchandise which go to make up the trade of the more important countries, as a matter which cannot fail to be of interest to our own merchants and manufacturers.

ARGENTINE TRADE WITH GERMANY.

I have in previous reports referred to the remarkable exhibit which the Argentine trade with Germany presents: $15,775,442
..... 3,254,981

The principal imports from Germany in 1885 consisted of the following articles:

Articles.	Value.	Articles.	Value.
Comestibles and groceries	$992,119	Manufactures of iron, including sewing machines	$589,780
Liquors and beer	452,530	Jewelry, &c	185,583
Tobacco and cigars	81,220	Crockery and glassware	401,660
Cotton and woolen goods	1,897,504	All other imports	1,096,708
Ready-made clothing and confections	569,660		
Drugs and chemicals	510,873	Total imports	7,262,999
Furniture, including 504 pianos	394,561		
Boots and shoes, &c	90,801		

The exports show an increase of upwards of $2,000,000 in the shipments of wool. They were as follows:

Articles.	Value.	Articles.	Value.
Wool	$6,812,780	Corn	$162,067
Ox hides	536,568	Various other products	1,288,942
Horse hides	393,675		
Sheep skins	318,411	Total exports	8,512,443

There is little doubt from present appearances that the German trade with the Argentine Republic has a satisfactory future before it. What has greatly added to its growth and will insure its permanency are the German lines of steamships, which now afford direct and rapid transit between the two countries.

ARGENTINE TRADE WITH BELGIUM.

There has been but little difference in the amount of trade between this country and Belgium during the years 1884 and 1885. For the former year it was $22,129,731; for the latter, $23,347,399. The imports consisted of:

Articles.	Value.	Articles.	Value.
Comestibles and groceries	$890,426	Materials for railways, tramways, public works, &c	$1,298,931
Liquors	215,608	Crockery, china, and glassware	460,971
Woolen and cotton goods, &c	1,160,817	All other imports	556,870
Ready-made clothing and confections	170,261		
Writing, printing, and other paper	357,118	Total	7,463,893
Boots and shoes	229,869		
Manufactures of iron, joists, columns, &c.	2,123,032		

The most important items in the exports from this country to Belgium were the following:

Articles.	Value.	Articles.	Value.

The wool exports of 1885 were $4,736,830 greater than that of the previous year.

ARGENTINE TRADE WITH BOLIVIA.

The trade overland between Bolivia and this country, which was opened during the late war with Chili, has continued to increase and begins to assume considerable proportions. The following are the figures for the last three years:

Direct trade.

Year.	Imports from Bolivia.	Exports to Bolivia.	Total.
1883	$65,097	$272,006	$338,003
1884	167,099	212,744	379,843
1885	1,412,718	248,800	1,661,518

The direct imports from Bolivia in 1885 consisted almost exclusively of silver, which amounted to $1,348,839. The exports from this country to Bolivia consisted of horses, cattle, and sheep driven over the mountains, $172,579.

But, besides this direct trade, there was a considerably increased transit trade, through the Argentine Republic, with European countries. Compared with last year this transit trade was as follows:

Transit trade.

Year.	From Bolivia.	To Bolivia.	Total.
1884	$6,371,903	$1,211,890	$7,583,793
1885	10,338,054	1,683,863	12,021,917

This transit trade is certified from the Rosario custom-house, from which place the transit begins by rail towards the northern frontiers, and thence by pack-mules over the pass. The merchandise from Bolivia consisted exclusively of silver, silver ore, copper, brass, tin, bismuth, &c. The following are the principal articles of merchandise sent to Bolivia:

Cotton, woolen, and other fabrics	$922,565
Ready-made clothing	232,603
Paper, furniture, boots, shoes	110,957
Iron manufactures	171,076
Fancy articles, &c	95,557

During the war American cotton took this direction to Bolivia; but whether the trade is still continued I have no means of knowing.

The imports consisted of—

Articles.	Value.	Articles.	Value.
Coffee	$566,402	All other articles	$239,443
Yerba or Paraguayan tea	871,076		
Sugar	79,390	Total imports	2,206,612
Tobacco	450,301		

The exports from the Argentine Republic to Brazil were:

Articles.	Value.	Articles.	Value.
Jerked beef	$1,286,720	Wheat	$81,258
Flour (4,145,862 kilograms)	290,210	All other articles	236,359
Corn (6,292,419 kilograms)	125,848		
Baled hay	149,395	Total exports	2,169,790

And in this manner the trade of the one country has just about balanced that of the other for the last ten years.

ARGENTINE TRADE WITH CHILI.

The trade between the Argentine Republic and Chili has shown no vitality for a number of years. Until this country embarked in the agricultural industry, a considerable proportion of the flour consumed here was imported from Chili, but all that is now at an end. The imports from Chili for the last five years have been a mere bagatelle. There are still large numbers of horned cattle and horses driven across the Andes from this country, and that is about the only trade there is between the nations. In 1885 the imports from Chili amounted to $45,074, mostly dried fruits and vegetables. The exports to Chili were cattle, mules, horses, &c., $2,246,728; grease and other things, $247,528; total, $2,494,256.

ARGENTINE TRADE WITH SPAIN.

There continues to be nothing in the trade between the Argentine Republic and Spain which is specially worthy of attention. There is a slight reduction on the figures of the previous year, the imports showing a decrease and the exports an increase. The imports of 1885 were:

Wines	$2,432,973
Common salt	221,125
All other articles imported	436,233
Total imports	3,189,331

The exports for the same year were:

Hides and pelts	$1,472,710
Jerked beef	210,078
Grease and tallow	316,643
Corn (2,752,936 kilograms)	55,058
Wheat (3,463,408 kilograms)	
All other exported	

ARGENTINE TRADE WITH FRANCE.

I have already in a former report referred to the close social and commercial relations which now exist between the Argentine Republic and France, and given the reasons for them. So long as the latter country continues to furnish the Argentines everything in the fashion line, and nearly everything in the drinking line, and a large part of its food and fancy articles, the importations from France are not likely to diminish to any great extent; while the new demand for Argentine wools, which now find a center of distribution at Dunkirk, makes the export trade a comparatively sure one. The principal imports in 1885 were:

Articles.	Value.	Articles.	Value.
Wines and brandies	$3,463,182	Jewelry	$755,948
Condiments and comestibles	2,220,348	China, glassware, &c	952,850
Cottons, woolens, and ready-made clothing	3,452,521	Objects of vertu, fancy, and fashion	940,811
Drugs, medicines, &c	489,357	And a thousand unenumerated articles	902,773
Writing, printing, and other paper	674,486	Total	14,545,195
Manufactures of iron	692,919		

The principal article of export is wool, and the portion of the Argentine clip which finds a market in France is increasing every year. The total wool export in 1885 was 128,393,264 kilograms, of which 59,149,582, or not quite one-half, was shipped to France; and the total shipments of sheep-skins was 31,336,894 kilograms, of which 20,883,900, or about two-thirds, were also sent to France. The following was the value of the principal articles exported:

Articles.	Value.	Articles.	Value.
Wool	$16,561,883	Linseed	$155,683
Sheep-skins	4,176,780	Hair	111,272
Goat-skins	544,165	Preserved meat	101,508
Ox hides	1,009,561	Other exports	279,808
Corn	982,859	Total	24,164,829
Grease and tallow	241,310		

What facilitates and makes easy the immense trade which thus exists between France and the Argentine Republic are the various lines of steamships which ply between this country and both the Atlantic and Mediteranean ports of France, whereby the two nations are brought within about twenty days of each other.

ARGENTINE TRADE WITH ITALY.

The Argentine trade with Italy offers but little that is worthy of no- [illegible] be the fact that it is so small. When we consider how [illegible] this country are Italians, and [illegible] Italy, it

who come to the Argentine Republic are mechanics and farmers, and not commercial men. The imports from Italy in 1885 were:

Articles.	Value.	Articles.	Value.
Olive oil	$900,690	Paper and stationery	$420,730
Rice	347,284	Other articles	1,528,370
Wine	447,631		
Comestibles, cheese, macaroni, &c.	563,241	Total	4,207,946

The exports of 1885 to Italy are of no particular significance, of which the principal items were: Wool, $469,114; sheep-skins, $150,565; ox hides, $734,057; grease and tallow, $146,894; wheat, $339,797; corn, $286,354; flour, $59,936; frozen mutton, $33,717; all other articles, $228,580; total exports, $2,448,014.

ARGENTINE TRADE WITH HOLLAND.

The imports from Holland in 1885 consisted of the following items: Refined sugar, $373,794; cheese, $69,057; gin, $59,155; rice, $15,878; other articles, $27,628; total, $545,522.

The exports were wheat, corn, and linseed, $67,009.

ARGENTINE TRADE WITH PARAGUAY.

The direct trade of the Argentine Republic with Paraguay remains about at last year's figures. The imports were: Sugar, $76,614; yerba mate, $726,655; tobacco, $204,286; timber, $253,917; railway sleepers, $109,612; fresh fruit, $32,454; other articles, $68,245; total imports, $1,471,783.

The exports from the Argentine Republic to Paraguay consisted only of a few cattle and small quantities of wheat, flour, corn, &c., altogether amounting to $160,121.

The Paraguayan transit trade through this country amounted to $518,822, of which only 13,547 were shipments to foreign ports and $505,275 represented European merchandise *en route* to Asuncion. Of the latter the principal articles were:

Articles.	Value.	Articles.	Value.
Comestibles	$12,840	Manufactures of iron	$30,407
Liquors and wines	22,300	Other articles	58,386
Cotton and woolen goods	344,824		
Ready-made clothing	37,518	Total	505,275

During the last year or two quite a number of Germans have gone to Paraguay to engage in trade, and the greater part of these transit shipments arrived from Germany.

ARGENTINE TRADE WITH PORTUGAL.

ARGENTINE TRADE WITH SWITZERLAND.

There were importations during 1885 of Swiss shoes (French) to the amount of $92,154; other articles, $5,566; total, $97,720. There were no exports from the Argentine Republic to Switzerland.

TRADE WITH ARGENTINE AND NORWAY AND SWEDEN.

There were imports of Norway pine lumber to the amount of $32,764 and exports of Argentine wool to the amount of $37,207—one cargo just about offsetting the other.

ARGENTINE TRADE WITH URUGUAY.

As I have heretofore mentioned, almost the entire commerce between Uruguay and the Argentine Republic consists merely of transshipment of foreign goods, which not finding a sale in one country are sent to the other, or of cargoes which are consigned "to order." These imports from Uruguay to the Argentine Republic, in 1885, amounted to $4,241,700; and the exports from this side of the river, which were simply sent down to Montevideo to find transshipment, amounted to $3,367,866, many of the most important houses in Buenos Ayres having branch houses in Montevideo.

ARGENTINE TRADE WITH GREAT BRITAIN.

In 1884, France occupied the first place in the total trade of the Argentine Republic, but the returns of 1885 show that Great Britain has once more gone to the front. The vitality which the trade with the latter country possesses is seen from the fact that the imports from the United Kingdom have quadrupled since 1876, and trebled since 1880. As a matter of reference, I give the total figures:

Year.	Imports.	Exports.	Total.
1876	$8,967,146	$7,446,599	$16,413,745
1877	9,847,960	5,528,302	15,376,262
1878	11,901,968	3,615,909	15,517,877
1879	12,431,467	3,878,969	16,310,436
1880	12,506,923	5,341,033	17,847,967
1881	$16,135,277	$3,889,424	$19,924,701
1882	19,554,962	7,625,516	27,180,448
1883	30,695,963	5,956,093	36,652,056
1884	37,727,694	7,211,437	37,939,131
1885	35,375,628	12,816,341	48,191,969

The significance of these figures will be understood when it is considered that the entire trade of the Argentine Republic has only doubled in the last ten years, being $84,160,735 in 1876 and $176,101,069 in 1885. Argentine trade has had no such development with any other country. This development, moreover, has been in great part in the matter of imports, England being the market whence this country obtains her industrial supplies, and London being the exchange where she negotiates her loans and keeps her bank account. The most important items in the list of imports from Great Britain, in 1885, were the fol-

In the matter of Argentine exports it cannot be said that England takes any particular interest, her food supply and raw materials coming to her in great part from her own colonies or from the United States. The returns show, however, that with the development of agriculture in the Argentine Republic, she would, in all probability, find the River Plate a good field from which to draw her breadstuffs, while the frozen meat industry, which is yet in its infancy in this country, promises a great development.

I give the principal exports for 1885:

Articles.	Value.	Articles.	Value.
Frozen and preserved meat	$184,552	Sheep-skins	$787,824
Linseed (45,880,014 kilograms)	2,294,022	Hides and pelts	1,384,402
Fine woods	136,144	Other items	3,077,879
Corn (maize), (81,876,272 kilograms)	1,637 525		
Wheat (45,086,938 kilograms)	1,803,478	Total	12,816,341
Tallow and grease	1,510,515		

Nearly all the business in the commercial line which Great Britain does in the River Plate is done through English houses or agents of the manufacturers, who have their establishments here on the spot, and who, with the facilities afforded in the matter of steamship lines and their own banks, must continue to have a monopoly of the importing trade.

ARGENTINE TRADE WITH THE UNITED STATES.

In volume the total trade of the Argentine Republic with the United States is $1,050,880 greater for 1885 than 1884. It is about three times greater than it was ten years ago, thus increasing more rapidly than the general trade of the entire country, which has only doubled within that time. Comparing the last two years together we have the following figures:

Year.	Imports.	Exports.	Total.
1884	$7,454,832	$4,064,848	$11,519,680
1885	7,006,719	5,563,841	12,570,560

From which it will be seen that, while there has been an increase of $1,498,993 in the amount of the exports from here to the United States, there has been a decrease of $448,115 in that of the imports. The latter fact, however, is a mere incident, for the importing trade from the United States shows a steady and very gratifying increase during the last ten years. It amounted to only $1,943,466 in 1876, thus showing, indeed, that it has almost quadrupled since that time.

DETAILED IMPORTS AND EXPORTS.

The whole story of our import and export trade with the Argentine Republic during the year 1885 will be [illegible]

Imports from the United States.

Articles.		Quantity.	Official value.
Olive oil	kilograms	1, 352	$473
Starch	do	383, 629	45, 438
Sugar, refined	do	21, 100	5, 149
Cinnamon	do	7, 514	2, 876
Canned meats			2, 396
Spices			1, 186
Corn starch			3, 316
Hams	kilograms	23, 630	1, 261
Lard		1, 261	33, 731
Preserved fish		108, 877	62, 069
Liquors			11, 038
Tobacco:			
Cigars			3, 132
Cigarettes			825
Tobacco	kilograms	95, 566	94, 585
Textile fabrics, &c.:			
Sack cloth			29, 246
Pack thread			3, 349
Casimeres			460
Sewing thread	kilograms	233, 587	14, 888
Cordage	do	19, 735	17, 233
Canvas			170, 286
Wicking	kilograms	120, 116	13, 711
Clotheslines	meters	186, 968	1, 531
Cotton goods	kilograms	75, 630	92, 909
Cotton goods			17, 153
Hempen goods			30, 643
Woolen goods			247
Mixed goods			852
Cotton articles			407
Hempen articles			67, 620
Linen articles			65, 702
Mixed articles	kilograms	82, 928	470
Calicoes and chintz goods			90, 625
Ready-made clothing			7, 460
Drugs, chemicals, paints, &c			82, 224
Fire-crackers			37, 863
Specifics for curing sheep scab	kilograms	3, 696, 669	68, 167
Kerosene		2, 501, 343	341, 891
Coal			25, 014
Perfumery			7, 913
Musical preparations	square meter	7, 459, 515	68, 167
Lumber, &c.:		30, 141	3, 305, 477
Pine			38, 278
Walnut			109, 964
Other kinds			3, 867
Trunks			8, 334
Carriages			1, 100
Musical instruments			129, 792
Furniture			1, 730
Pianos			44, 709
Other wooden articles	kilograms	981	255
Paper, &c.:		5, 525	2, 977
Printing paper		1, 384	494
Wall paper		4, 319	11, 285
Wrapping paper			2, 838
Sand paper			5, 996
Other paper			5, 839
Blank books			1, 410
Printed books			6, 668
Other printed matter			9, 965
Manufactures of leather			516
Manufactures of iron:			8, 143
Arms	kilograms	54, 540	43, 418
Needles			15, 270
Wire		87, 394	472
Kitchen utensils			2, 501

Imports from the United States—Continued.

Articles.	Quantity.	Official value.
Sewing-machines.....number..	3,941	$71,735
Presses	4	980
Machinery and motors	.....	70,057
Materials for railways	.....	321,962
Materials for tramways	.....	28,455
Materials for public works	.....	193,896
Jewelry, watches, clocks, &c	.....	82,371
Lamps and glassware, &c	.....	86,596
Blacking	.....	18,869
Tar.....kilograms..	1,750,782	84,511
Various other articles	.....	40,229
Total	.....	7,006,719

Exports to the United States.

Articles.	Quantity.	Official value.
Canary seeds.....kilograms..	149,189	$8,945
Bones and bone ash.....do....	8,020,905	176,460
Hair.....do....	743,285	371,642
Goat-skins.....do....	1,541,006	955,428
Sheep-skins.....do....	165,074	32,625
Nutria-skins.....do....	198,148	118,828
Various skins	.....	2,205
Ox hides:		
Dry.....number..	483,390	2,360,145
Salted.....do....	4,353	23,942
Hide-cuttings	.....	23,523
Wool.....kilograms..	4,239,699	1,187,115
Linseed.....do....	6,278,666	251,147
Other articles	.....	18,901
Total	.....	5,563,841

THE IMPORT TRADE FROM THE UNITED STATES.

In regard to our import trade with the Argentine Republic it may be said generally that it presents no new features. It consists in great part, as heretofore, of raw materials and crude articles, a part at least of which come from the United States simply because they cannot be procured elsewhere. The following table shows a comparison of the imports of leading articles for the last four years:

Articles.	1882.	1883.	1884.	1885.
Turpentine	$29,012	$65,350	$34,430	$25,152
Alcohol and other liquors	68,348	55,800	97,271	11,038
Starch	83,303	53,959	49,448	45,438
Agricultural implements, &c	528,046	157,248	136,530	611,002
Lamps and gas fixtures	46,200	47,966	66,159	86,596
Lumber of all kinds	2,019,216	1,741,238	2,870,146	3,453,719
Furniture	176,847	77,258	92,517	129,792
Cotton goods	125,009	147,578	178,178	200,697
Hardware, &c	141,623	171,501	280,694	226,073
Lard	26,619	23,597	40,326	33,731
Kerosene	363,139	564,148	866,741	341,891
Railway machinery, &c	273,376	274,385		
Drugs, &c				

Our imports cannot be expected to assume very much greater importance than they at present exhibit until we possess better facilities for doing business and a more intimate intercommunication by means of steam. I have, however, so often referred to the subject that it is hardly necessary for me at the present time to dwell on the importance of regular steamship communication, of the establishment of more direct banking relations with the Argentine Republic, and of the opening of business houses here which have connections with our own manufacturing centers. On the latter point I may, however, repeat that the occasional movements which have been made to obtain orders from this and other South American countries for our industrial products by jobbers or wholesale dealers, or even third parties, who receive a commission from the dealers for effecting sales, will not succeed. This might do were the field a new one, but it is already occupied by other manufacturing nations. The competition, therefore, is so close and exacting that it is absolutely necessary, in order even to obtain any proportion of the trade, that our manufacturers should put their goods down here encumbered as little as possible with charges and profits of middle men. Some of our manufacturing establishments are beginning to understand this, and now, instead of doing their business through brokers or commission men, they do it themselves. They find that what they heretofore paid for commissions is in itself a very fair profit on their goods. All our manufacturers who would succeed in placing their fabrics on this market will have to do likewise.

THE EXPORT TRADE TO THE UNITED STATES.

The figures of the exports from the Argentine Republic to the United States are the largest since our war. The following table is a comparison of the last three years of the most important articles:

Articles.	1883.	1884.	1885.
Ox and cow hides	$1,488,799	$2,462,244	$2,384,087
Wool	955,862	602,737	1,187,115
Linseed	30,515	96,051	251,147
Sheep-skins	1,156	272,957	32,625
Goat-skins	277,209	161,143	955,428

Ox and cow hides still continue to be the leading article of the export trade to the United States, though the wool shipments show considerable increase over previous figures.

WOOL.

In regard to the latter article, there seems to be a growing sentiment that a freer export of wool to the United States is the key which would open a large and profitable reciprocal commerce between ourselves and [illegible] Republics. There is no doubt that it would increase and [illegible] which exist between the two [illegible] of State.

time of our war the United States had a very considerable trade in cotton drillings, duck, and other lines of staple goods; and that this trade could be readily regained by our reducing our wool duties, thus stimulating an interchange of products and opening a larger field for our commerce. Of course, however, our trade relations with other countries is a matter for Congress to regulate.

And again, in my report for 1885, in referring to our limited trade with the Argentine Republic, I said:

The export trade to the United States fluctuates, year by year, according to the demand which our manufacturing establishments may have for such supplies, outside of our own country, and owing to the production of these articles which the United States is now able to throw upon the home market, it is not probable, unless there should be a reduction of our duties on wool, that our supplies of raw materials from the Argentine Republic will ever reach to very large figures. In regard to wool it is very evident that it can be produced much cheaper here than in the United States, but, since 1864, our tariff has quite precluded all shipments, except the coarse carpet wools from Cordoba. * * There is no doubt, however, even were the Argentine export duties on unwashed wool repealed, that it would greatly increase the amount of the shipments of that article to the United States. As it is, with an export duty here of 4 per cent. on the declared value, in addition to our own home tariff on foreign wool, it is impossible to ship it to our ports at paying rates.

ARGENTINE EXPORT DUTY ON WOOL.

This export duty on raw materials is a peculiarity of perhaps all the South American countries, and has been a feature of the Argentine tariff for a great many years. An effort was made last year to repeal it out of existence, on the ground that export duties are a great burden upon the industries of the country, but owing to the necessities of the Government the measure was abandoned, the Congress contenting itself with merely reducing the amount of the tax. That upon wool, which had previously been at 6 per cent., was marked down to 4 per cent. The official value, on which this duty has to be paid, for the present year, is at the rate of $24 per 100 kilograms, or 220 pounds; *i. e.*, about 11 cents per pound. I do not know the fine points of the wool trade, nor the price in the United States at which it would pay to ship clothing or combing wools, our tariff on these classes being 10 cents per pound, but it has occurred to me that perhaps the repeal of this export tax by the Argentine Republic might assist the situation. There is no doubt that our trade with the Argentine Republic would attain much greater proportions were there such modifications of existing tariffs, Argentine as well as American, as would allow wool to be profitably shipped to the United States.

OUR DISCRIMINATION AGAINST ARGENTINE WOOL.

Even, however, if the Argentine export duty on wool is not taken off, and our own tariff rate remains as it is, our Government should at least so adjust its valuations as not to discriminate against the wools of this country. It appears that at present there is an unintentional but a practical discrimination against Argentine wools and in favor of those from Australia and New Zealand, in this, that the former are much heavier in grease and dirt, and we make no allowance or reduction whatever for such excess. It appears that the amount of dirt and grease in the wools of the Argentine Republic reaches to more than 70 per cent., while the wools of Australia and New Zealand

the United States did not use foreign wools at all the case would be different. The discrimination would have no practical significance. But they do use foreign wools, and just such classes of foreign wools as the Argentine Republic produces, and, owing to the more intimate trade relations which we are striving to cultivate with this country, we should avoid even the appearance of favoring other nations to the detriment of the Argentine Republic.

On the subject of this discrimination against Argentine wools by the United States I append the following letter, written by George F. Brown, esq., agent in New York of the American house of Samuel D. Hale & Co., doing business in Buenos Ayres, to the Rev. Dr. John F. Thompson, pastor of the American Methodist Episcopal Church of this city:

[From Buenos Ayres Standard.]

NEW YORK, *June* 12, 1886.

Rev. JOHN F. THOMPSON, D. D., *Buenos Ayres:*

MY DEAR SIR: As during your recent visit to the United States you interested yourself to some extent in the working of our present tariff on clothing wools, under which their importation from the Argentine Republic has been practically abandoned, I follow your suggestion and address you a few lines upon the subject.

The duty on clothing and combing wools costing not more than 30 cents per pound at place of growth is 10 cents per pound (for unwashed), regardless of condition or of their relative value to our manufacturers.

This is a serious inconsistency and is a practical discrimination against Argentine wools, for the reason that they are much heavier in grease and dirt than the wools from Australia and New Zealand, and must continue to be so, owing to the nature and abundance of the grasses upon which the sheep feed and the dust and dirt they gather from constant exposure and generally fat condition.

As the actual value of wool to the manufacturer depends upon its quality in the cleaned or scoured state, and as it must be cleaned or scoured before it can be manufactured, it follows, in the application of a specific duty to wools in the grease, that the duties are heavier or lighter according to the quantity of grease and dirt that the wool contains. In other words, the duty on cleaned or scoured wool must be considered.

At present the Argentine wools would pay the same specific duty as those from Australia and New Zealand, say 10 cents per pound in the grease, but from their respective yield in scoured wool it is plain to be seen that the tax is much greater upon the former than upon the latter.

Assuming that the average yield of Buenos Ayres and Santa Fé wool is 32 pounds in 100—and we are safe in saying it is no greater—it follows that the duty per scoured pound would be 31¼ cents.

Among dealers and manufacturers 40 per cent. is considered as yield of the general run of Australian and New Zealand clips; and such at 10 cents per pound would be equivalent to 24⅜ cents per scoured pound, or 6⅞ cents per pound less than on Buenos Ayres, &c.

This applies to the average or general run of the respective clips. But while it may be admitted that selections can be made from Argentine wools that may yield 36 or possibly 38 per cent. (though in limited quantities), yet it is a fact that very little of our large importations from Australia, &c., yield less than 48 per cent., and some as high as 53. To make comparison, therefore, it is proper to consider what we do receive from Australia, &c., and the best we might receive from Buenos Ayres. In this manner, taking the cases respectively, 48 per cent. and 38 per cent., we find the duty per scoured pound to be 20⅝ cents for Australian, &c., and 26⅛ for Buenos Ayres, a difference of 5½ cents.

This difference alone would amount to prohibition, but there is the additional fact [illegible] more or less burs and seeds in all the Buenos Ayres [illegible] price as Australian, and al-

Now, it may be asked why our manufacturers acquiesced in a tariff that debars them from using the Buenos Ayres wool, when for the production of certain fabrics foreign wool is a necessity. To this I can only reply, after reading the pamphlet recently addressed to the Secretary of the Treasury by the National Association of Wool Manufacturers, in response to his circular asking for information bearing upon the question of possible revision of the tariff, that having accepted the revision made in 1883 and adjusted their business to it, based upon the expectation of its continuance, they are opposed to any changes as tending to disturb the relation of business.

They make no allusion to the discrimination against Argentine wools, and the only reference made to them in the body of their address is as follows:

"To these considerations it should be added that the high specific duty on clothing wools, a duty irrespective of the cost, practically excludes the cheap and abundant clothing wools of South America, and by freeing them from our competition for their purchase makes them much cheaper than they would otherwise be to the manufacturers of France, Belgium, and Germany, who work them up into cloths and stuffs by the cheapest labor in Europe."

Still we are not to suppose that our manufacturers would not use the Argentine wools if they could be admitted under a fair rate of duty; and on the other hand it is only reasonable to infer that they would do so, as they have done largely in years past.

Whether the wools are wanted or not the fact remains that they are unjustly discriminated against. This was admitted (unofficially) by those of the Tariff Commission in 1882, who had the matter of wool in consideration, but there seemed to be no practical remedy, except under an "ad valorem" tariff, and to this they were opposed as opening the way to fraud by undervalued invoices. But it does seem as though some means might be devised to put this matter straight and avoid the perpetuation of such injustice towards a friendly Republic. Possibly a formal protest on the part of the Argentine Government, through their representative at Washington, might bring the matter squarely before our legislators; but until something of this kind is done there seems little prospect of a remedy, as the wool-growing industry of this country has assumed immense proportions, and all interested in it are so anxious for "protection" that their united influence would oppose any movement tending to facilitate further importations of the foreign article.

I remain, dear sir, yours truly,

GEORGE F. BROWN.

THE PIONEER OF THE ARGENTINE-AMERICAN TRADE.

In closing this review of the commerce of the United States with the Argentine Republic, it seems appropriate that I should mention here one of the pioneers in that trade. I refer to Samuel B. Hale, esq., who was born in Groton, Mass, I believe, in the year 1803, and who, in 1833, under the auspices of the Lawrences, of Boston, had the nerve and the energy to try his fortunes in the River Plate. With a clear-headed sagacity and business tact which have characterized him through life he saw and at once took advantage of the opportunity which offered of conducting here a reciprocal trade with the United States. In 1835 he opened the American house of Samuel B. Hale & Co., which, through all the changes, revolutionary, political, financial, and commercial, which the Argentine Republic has known, has kept on the even tenor of its way, extending and prospering, until to-day it has come to be one of the institutions of the country, one of the landmarks of a past age. At one time it managed and controlled nearly all the commerce between the United States and the Argentine Republic, and conducted the immense wool trade which, before our war, found its market at Boston. The house is associated with all that is honest and honorable in business, and to-day possesses a prestige and good name which places it in the first rank of the commercial houses of the world.

from commercial business, the house has for several years devoted itself to financial affairs, and has placed in Europe a number of the most important loans of this and other provinces of the Argentine Republic. The credit of the house is fortified by the possession of a number of the most extensive cattle and sheep estancias in the country. Mr. Hale is now an old man, quite eighty-four years of age, entirely retired from active business. In a happy, cheerful, old age, surrounded by children, grand-children, and great-grand-children, he lives at a beautiful country seat, just outside of the city, overlooking the Rio la Plate, and not only dispenses a generous hospitality to all Americans coming to the Argentine Republic, but to the poor, the shipwrecked, and the unfortunate he opens his purse-strings with a liberality and benevolence which ask no questions. The shadows of a busy and well-spent life are now gathering around him. His work is almost done, but with it will long be associated the memory of a thousand acts of kindness to his fellow-men and integrity which was never questioned.

ARGENTINE TARIFF FOR 1887.

The Argentine Congress, just adjourned, made some changes in the customs law of the country for 1887. I give a translation of the new enactment below:

IMPORT DUTIES.

ART. I. All foreign merchandise imported for consumption shall pay a duty of 25 per cent. on its valuation in deposit except as follows:

(1) Tobacco, which shall pay a duty of 55 per cent.

(2) Fire-arms and munitions, powder, perfumery, cigars of all kinds, and snuff, which shall pay a duty of 50 per cent.

(3) Ready-made clothing and confections, hats and caps, boots and shoes, dress ornaments, harness, carriages, furniture, matches other than wax, fire-crackers, Yerba mat6 and objects of art, which shall pay a duty of 45 per cent.

(4) Iron not galvanized, in plates, bars, or sheets, white pine and spruce unworked. common salt, all kinds of writing and printing paper, which shall pay a duty 10 per cent.

(5) Canvas and sack cloth, jewelry, gold and silver worked, sewing and embroidery silk, all instruments or implements with handles or ornaments of silver or gold, when these increase its value one-third part; plows, staves, wooden or iron casks, iron hoops, printed books, with pasteboard covers and without gilt ornamentation; printing presses, and all materials for printing except types; lithographic presses, machinery of all kinds for agricultural or industrial purposes, steam-engines and detached pieces of machinery, thread and wire on spools for binding, sulphuric acid and sulphate of lime, which shall pay a duty of 5 per cent.

(6) Precious stones, which shall pay a duty of 2 per cent.

(7) The following specific duties, to wit:

Wheat, for each 100 kilograms	$1 65
Starch, for each kilogram	05
Coffee, for each kilogram	08
Macaroni, for each kilogram	07
Crackers and biscuits, for each kilogram	09
Corn meal, for each kilogram	04
Flour, for each kilogram	04
[illegible] for each kilogram	04
	30
	07
	06

Kerosene, per liter	$0 05
Stearine or paraffine candles, per kilogram	15
Stearine, per kilogram	12
Playing cards, per gross	10 00
Wax matches, per kilogram	50

All articles of weight which have two or more coverings shall pay the specific duty on the immediate covering.

ART. II. The following articles shall be imported free of duty, to wit: Vessels and machinery for steam vessels; stone coal; wire, for fencing and for telegraphs; blood stock and live cattle; fresh fish and fresh fruit; furniture and tools of immigrants; gold and silver, coined, in grain, bars, or dust; live plants; railway and tramway materials; locomotives; car-wheels; iron piping, ungalvanized, for gas or water, of at least 75 millimeters diameter; quicksilver; cask frames of more than 2 kilograms; special mining powder and drilling machines; church ornaments, or for purposes of religious worship; books and stationery at the request of boards of education; specifics for curing scab in sheep; all articles excepted by special laws of Congress.

EXPORT DUTIES.

ART. III. All kinds of produce or manufactures are free of any export duty, with the exception of the following, which shall pay as follows:

Four per cent.—Washed and unwashed wool; skins of wild animals; sheep-skins, washed or unwashed; ostrich feathers.

Three per cent.—Animal oil, horns and horn-piths, bone-ash, hair, hide-cuttings, grease and tallow, bones, hides, and skins not otherwise mentioned.

I would state that by a supplemental law there is a duty of 1 per cent. additional to the rates above specified on all articles of importation. The duties are liquidated according to a tariff of official valuations formed on the basis of the actual value of the imports in deposit, and on the prices in the market ready for export, on all articles to be exported.

THE PRESENT OUTLOOK OF TRADE.

For the reasons heretofore given by me the general trade of the Argentine Republic during the year just closing has not been a satisfactory or a profitable one. The violent fluctuations of gold have rendered it impossible for importing houses to be sure of what they were doing in regard to their time sales. Transactions of this character, which seemed to promise a fair return, have ended in ultimate losses. By marking up their goods to such currency rates as left but little to be feared from the daily changes in the premium on gold, many houses, however, have been able to go through the year without much anxiety; but no trade can be a sure and safe one which must be conducted in a fluctuating currency. And, then, the tendency to overtrading still continues to an extent which cannot fail still further to demoralize the financial status of the country. The public deposits are filled to overflowing with merchandise, awaiting a chance to find a market at almost any price. The custom-house returns for the year 1886, made up to the 1st of December, show that at the port of Buenos Ayres there have been imported nearly fifteen millions of dollars more than the year previous, while the exports were nearly four millions of dollars less. The following are the figures:

For eleven months.	Imports.	Exports.

tion of the imports not being for reproductive industries, cannot fail to tell upon its financial condition and bring on commercial depression, if not convulsion. In such a state of affairs no matter how much gold the Government, by means of foreign loans, may bring into the country, it is sure at once to find its way out of it again to pay its debts.

REVENUES AND EXPENDITURES OF THE ARGENTINE REPUBLIC.

The revenues for the Argentine Republic for the year 1885 amounted from all sources to $36,416,132, being less by $820,688 than those of the preceding year. As a matter of some financial interest I give below a table showing the annual revenues of the nation for the last sixteen years:

Year.	Amount.	Year.	Amount.
1870	$15,327,709	1878	$19,066,999
1871	13,104,920	1879	21,660,863
1872	18,778,363	1880	20,247,487
1873	20,965,585	1881	22,057,500
1874	17,077,817	1882	26,665,105
1875	17,779,720	1883	30,713,348
1876	14,036,424	1884	37,236,820
1877	15,318,264	1885	36,416,132

The falling off in the last year is explained by the reduction in the duties on exports. It will be observed that the revenue has doubled in the last ten years, thus corresponding to the increase in the foreign commerce of the nation.

RECEIPTS FOR 1885.

The following table shows the sources from which the revenue of 1885 was derived:

Imports	$23,205,975
Exports	2,375,815
Warehousing	673,668
Stamped paper and business licenses	2,736,341
Post-office	586,494
National telegraphs	243,958
Light-houses	109,232
National railways	2,751,927
Various sources	2,489,930
Sundries	1,242,792
Total	36,416,132

Being $4,078,052 below the estimated receipts.

THE BUDGET FOR 1885.

The appropriations made by Congress for the support of the public service for the year 1885 were $43,080,161, against $34,053,484 in 1884; [illegible] and $28,145,066 in 1882. The budget was dis-

So that between the budget and the revenues with which to meet it there was a deficiency of $6,674,629, which has had to be met by the usual recourse—the issue of treasury notes.

PRESENT DEBT OF THE NATION.

The minister of finance in his last report to Congress states that on the 31st of December, 1885, the bonded debt of the Argentine Republic was as follows:

Internal debt, bonded	$47,137,764
Fóreign loans	71,194,032
Total bonded debt	118,337,796
Floating debt outstanding at that time	25,901,826
Total liabilities December 31, 1885	144,239,622

The total debt of the Argentine Republic in 1881 was $82,017,291; in 1882, $102,026,627; in 1883, $106,477,311; in 1884, $122,603,098; and in 1885, $144,239,622, a rate of progression which it would seem cannot be continued with a proper regard for the national credit. However, the minister of finance takes a hopeful view of the situation. He says:

> The wind-up of the financial year is much more satisfactory than could have been expected, for although a few unfavorable symptoms remain, they are disappearing by degrees as the country advances in recovery. The suspension of specie payments in January, 1885, caused some disorder in commercial operations at the same time that the budget was out of equilibrium, owing to the costly public works then in progress. To add to our misfortune there was an alarming state of affairs in Europe which threatened to result in war between two great powers. All these things affected our market, driving up gold to an unprecedented premium, and as we could not avert the evils we did all we could to minimize them.
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> As a primary measure to mitigate the crisis last year the Government cut down the expenditures by three millions in order to avert a deficit. Meanwhile, an extra duty of 15 per cent. paper was levied on imports to meet the loss in exchange on account of the suspension of specie payments, and as the gold premium was much higher the merchants actually paid less duties on their goods than if the duties had been liquidated in gold. We furthermore abolished the decree which required the banks to keep their reserves in gold. We reduced the estimates on the public works. We consolidated the floating debt. We imported large sums of gold on account of foreign loans to strengthen the specie reserve of the National Bank, which had made advances to the Government to enable it to carry on the public works and made such for the budget of 1886 as to show a probable surplus of revenue over all expenditures. It will be perceived, however, that "special credits" upset all our calculations in regard to a financial equilibrium, leaving us in the end with a deficit of $2,000,000. This system indulged in by Congress of voting moneys outside of the general budget is enough to throw the finances of any country into disorder. We can never make our national credit strong and place it above all question so long as we are afflicted with deficits at the close of each year and an outstanding floating debt which we cannot meet. Congress should once for all establish the rule of making no appropriations without providing the ways and means of meeting them. Our floating debt has now reached to about $26,000,000. Our finances would be much easier and our credit far better if we could get rid of floating debts and make both ends of the budget even.

It must be confessed that the finance minister does not take a very rose-colored view of the financial situation. The balance of the forty-two million loan, negotiated by Dr. Pellegrini last year, was long since paid over to the Government at the rate of 81 cents to the dollar, a rate which can hardly be understood or explained, when we consider the punctuality with which the Argentine Republic

pending for the sale of the national railways to private parties; and if the Government can thus get quit of a business in which it ought never to have embarked (especially as private capital was ready and anxious to assume the work), at such figures as will save it from too great loss on its investments, it would be the part of wisdom for it to do so. The Government will thus be able to avoid further loans and further financial complications. Last year the national railways produced $1,300,000 over their expenses, or only about 3½ per cent. on the capital invested in them, for the loan of which the Government is paying 6 per cent.

SERVICE OF THE PUBLIC DEBT.

In the year 1885, of the total revenues of the nation, amounting to $36,416,132, the sum of $14,030,446, or nearly 40 per cent., was required to meet the interest on the bonded debt. For the present year I have not the estimated figures, but they will run to over $16,000,000, the new loan of $20,000,000 alone calling for $1,400,000 additional for interest and amortization; so that the service of the public debt is getting to be a burden which will soon require one-half of the public revenues to meet.

THE BUDGET FOR 1886.

The budget for the present year, 1886, based upon a large probable increase in the revenue, makes the following appropriations:

Ministry of the army and navy	$9,691,000
Ministry of finance	17,126,000
Ministry of the interior	8,243,000
Ministry of foreign affairs	436,000
Ministry of justice, worship, and schools	5,292,000
Total	40,788,000

The receipts of the Government for the half-year ending June 30, 1886, were $22,820,000, and thus the total revenue of the year it was then thought would reach fully $46,000,000, but during the last two or three months there has been a considerable falling off in custom-house business, and it is doubtful now if the revenue will reach above $40,000,000; thus, when we consider the large amount of supplementary credits, leaving another deficiency to be provided for.

APPROPRIATIONS FOR 1887.

The Congress which has just adjourned, estimating the receipts for 1887 at $43,966,360, has appropriated the sum of about $47,377,000 for the ordinary expenses of the Government. Beyond this, however, according to the figures published in the *Nacion* paper of this city, it has made provision for public works, public edifices, bridges, canals, &c., to the amount of $11,915,836 and ordered a loan of $12,000,000 to pay a balance due to the National Bank for advances, the total amount of the appropriation for 1887 amounting to $68,978,161. And to the general [illegible] bill to be added the sum of $4,459,500, being the amount of [illegible] charters, which Congress has

PROGRAMME OF THE NEW PRESIDENT.

Dr. Celman, the new President of the Republic, seems to appreciate the situation, and in the cordial good feeling which is expressed for his administration, and in the practical common sense which is believed to characterize his statesmanship, great hopes are entertained that he will exercise a conservative influence in the Government, insisting that Congress shall more carefully keep its expenditures of the public money within the revenues of the nation. In the programme, which, in his inaugural address, he marked out for himself, he says:

I shall direct all my efforts to the improvement of the financial situation of the nation, whose problem has not yet been solved. In her elements of labor, activity, and production, the Republic is working a wonderful change. She no longer devotes all her attention and energies to cattle and sheep breeding, but now exhibits an abiding interest in the agricultural industry, cultivating the sugar-cane and the vine, and growing increasing quantities of wheat and other cereals. In extending the protecting arm of the Government over all these and other industries, it will be my duty to foster, encourage, and facilitate their development by extending railway communication to the farthest frontiers; by cementing the kindly feelings which link us to other nations; by removing all obstacles to commerce and navigation; by building ports and piers to meet the exigencies of our home and foreign trade, and by ever deeming it my sacred duty to meet all obligations contracted by the Government at home and abroad. And the nation can fulfill all these duties, without either effort or sacrifice, by the exercise of a prudent economy. To this end, however, we must restrict the use of the public credit. We must stop building railways ourselves and let others build them for us. We must consolidate the public debt, home as well as foreign, thus effecting a great saving in its service. Thus the credit of the nation will be raised to the level to which a country that religiously meets all its obligations has a right to aspire.

Devoting his energies to the carrying out of these propositions, Dr. Celman's administration cannot fail to be a success.

THE YEAR CLOSES WITH A CHOLERA PANIC.

While preparing these last pages, in the fear that the Argentine Republic, in view of its public debts and private overtrading, was carrying a heavier burden than prudence would dictate; in the hope that there would be some satisfactory solution of the financial confusion in which the country seems to be involved, I am pained to announce to the Department of State that cholera, that dreadful scourge of the nations, which ever leaves wreck and ruin behind it, has appeared in this port and throughout the various centers of population in the interior. Thus far it has exhibited no great development; but even so it has created a panic all over the Republic. Men are running from their business; families are escaping from their homes. In a moment, as it were, from the high hope and determined energy which characterized the appearance of this city, a shadow has closed over every department of industry. All foreign commerce is paralyzed; all domestic trade has stopped. The interior has put on quarantine against Buenos Ayres, and Buenos Ayres against the interior. The railways have been compelled to suspend the running of trains by boards of public health, and the fleet of steamers, which ply upon the upper rivers, are required to lie idle in port. A sort of terror, senseless and unmanly, seems to have taken possession of public officials. We cannot communicate with either Montevideo or Rio Janeiro by letter, and I suppose to-day all the

BRAZIL.

Annual report of Consul-General Armstrong.

FINANCIAL SITUATION.

Although Brazil is a country of vast natural resources, the present financial situation of the Empire is far from prosperous. Since 1870 not a single fiscal year has closed without a deficit. In the five years from July 1, 1870, to June 30, 1875, the receipts of the treasury amounted to 514,253,712,462 reis, averaging therefor 102,850,742,492 reis per annum, equivalent to $55,339,400 in United States currency with ex change at par.

The expenses during the same period amounted to 570,865,736,764 reis, averaging therefor 114,173,147,352 reis, or (at same rate of exchange) $61,653,499 per annum.

The deficit, then, averaged $6,314,099 a year, or over $30,000,000 in the five years.

In the following five years the receipts amounted to 537,447,569,402 reis, averaging 107,489,513,880 reis, or, in United States currency, $58,044,337 per annum.

The expenses during this period were 745,674,196,070 reis, or at the rate of 149,134,839,214 reis, or $80,532,913 per annum.

It will be seen from these figures that the annual deficit increased from some $6,000,000 in the first five years to over $20,000,000 in the second.

It was apparent to Brazilian statesmen that this state of affairs could not be allowed to continue, the country being undoubtedly in danger of bankruptcy. The first ministry organized after the electoral reform of 1881, under the direction of Senator Martinho Campos, declared on appearing before Parliament that, laying aside all party questions and invoking the assistance of its adversaries, it would devote itself especially to the solution of the financial problem.

This ministry, however, remained in office only a few months, and of course in so short a period it was impossible to make any progress in the solution of so difficult a question. Since then there have been no less than six changes of ministry. None of the cabinets organized in consequence of these changes have as yet been able to settle this important question. In the fiscal year ending June 30, 1884, the deficit amounted to 23,762,906,843 reis (or $12,631,970), and to 35,086,691,304 reis ($18,946,813) in the year ending June 30, 1885.

To overcome these deficits the Government has been obliged to contract loans, issue paper money, and increase the already burdensome taxes. The total amount of paper money issued between 1870 and the [illegible] 57,254,000 reis, or in United States currency [illegible] circulation is 204,128,575,000 [illegible] by

rency. Besides, it contracted four foreign loans to the aggregate amount of £19,791,330, with interest varying from 4½ to 5 per cent., and payable in gold, and one internal loan of 51,885,000,000 reis, with interest at 4½ per cent. payable in gold.

The present amount of indebtedness of the country is as follows, in United States currency:

Foreign debt	$114,670,950
Internal debt (funded)	238,575,888
Internal debt (floating)	133,371,409
Total	486,618,247

Besides the state is responsible for guaranteed interest on $123,120,601 invested in railroads, central sugar mills, &c. In the last budget the expense, with the national debt during the current year, is estimated at $25,410,392 and that with guaranteed interest at $4,442,025.

The national debt of Brazil is about eight times the average annual revenue of the country and about two and a half times the amount of its annual foreign trade.

Comparing Brazil with other countries and taking into consideration the circumstances that are peculiar to the former, we may estimate the production of the Empire at about double the amount of its average yearly foreign trade. If this estimate be correct the public expenses consume about 20 per cent. of the production. Thirty years, as is shown by a similar calculation, they consumed only 10 per cent. In other words, in the last thirty years public expenses have increased twice as fast as production. The revenue of the country is principally derived from the following sources: Import duties, export duties, receipts of Government railroads, tax on transfer of property, stamp tax, tax on industries and professions, tax on house-rent; from these are derived over 90 per cent. of the revenue of the country. The import duties alone contribute more than one-half of this revenue.

Nominally these duties vary from 10 to 40 per cent. The custom-house also collects on imports a certain percentage on the amount of these duties. This percentage, when first established, was only 5 per cent.; but it has been gradually elevated to meet the demands of the State for greater revenue. The last alteration took place in 1882, when the percentage was elevated from 50 to 60 per cent.

The emancipation law of 1885 established a surtax of 5 per cent. on all taxes, except export duties, for the purpose of augmenting the emancipation fund. The import duties, then, with the addition of the percentage of 60 per cent. and the surtax of 5 per cent. nominally vary from 16.8 to 67.2 per cent. In many instances, however, these duties are really much heavier, as is the case for example with kerosene oil, which, as I stated in a previous report, pays 86 per cent., although nominally the duty is only 30 per cent. There are some other goods which pay 150 per cent. of their value.

Besides, there are other custom-house charges on goods introduced into the country, such as those for handling and storage, and a tax called "*expediente*," of 5 per cent. on some classes of goods nominally free from duty. The custom-house storage charges, which were elevated in 1882, are now as follows: If the merchandise does not remain in the custom-house more than one month, it

from 1 to 9 per cent. Exports pay, also duties to the provincial governments, which, indeed, have even imposed import duties, thus raising questions which are still unsettled. In a future report I shall treat of provincial taxes, some of which seem very exorbitant, although the amount of revenue derived from them is not large. The aggregate annual revenue of Brazil amounts to only about $15,000,000 or $16,000,000. Coffee, which is the principal export from this port (its value being generally from 90 to 95 per cent. of that of the total exportation), pays 7 per cent. duty to the General Government and 4 per cent. to the provincial government at Rio de Janeiro.

The tax on the transfer of real estate is 6 per cent., of which half is paid by the buyer and half by the seller. The tax on house-rents is 12 per cent.

Besides the taxes which have already been mentioned, there are many others which, though providing little revenue, undoubtedly increased the burdens of the tax-payers. Among them are those on salaries of public employés, dividends, mining grants, patents, slaves, cattle, &c. As I have said, in consequence of the excess of public expenses over the revenue the tendency is to increase taxes, which may be seen from this incomplete enumeration are already very burdensome.

During the last session of Parliament the Government was authorized to impose a tax of about 20 cents a bushel on salt, a tax of 1 per cent. on debentures, and a tax of 50 reis ($2\frac{1}{2}$ cents) a liter (about 9 cents a gallon) on alcoholic liquors. It was also authorized to revise the tariff of the custom-house and the schedule of the stamp act. This revision is equivalent to additional taxation, for it is estimated that there will result therefrom an increase of about $2,400,000 in the products of the import duties, and about $100,000 in that of the stamp tax. The tax on alcoholic liquors will produce, it is thought, about $320,000, and that on salt about $270,000.

Many causes contribute to the present unsatisfactory state of Brazilian finances, but the most important among them, and that which affects them all in a greater or less degree, is the labor question, that difficult problem, which in some form has never ceased to perplex mankind, and which, even now, constantly threatens the very existence of all civilized nations.

It is the peculiar misfortune of Brazil, at the present moment, to be destroying the system of labor now in existence here, without having thus far been entirely able to replace it. It is true that there is a small current of immigration flowing into the country; that there is a limited supply of native free labor; that there are cheaper and better means of communication; that the use of improved and labor-saving machinery is gradually becoming more general, and that the slaves freed have been partly substituted by more efficient slaves who have recently grown to manhood. These and other favorable circumstances have certainly not failed to exercise a beneficial influence on the financial affairs of the country; still, as we have seen, they have not been able to [illegible] normal rate of progress, and while public expenses have [illegible] increased in the same proportion.

[illegible] Janeiro, São

The labor of freedmen has not thus far proved very efficient. The free-born native population of the Empire is estimated at from eight to ten millions. Of the great mass of this population the legislative assembly of the province of Rio Janeiro, in a memorial addressed in 1880 to the General Assembly of the Empire, says as follows:

> The unfortunate inhabitants of our rural districts, without direction, without assistance, without habits of industry, without example, do not form part of the social communion, do not produce nor consume; they only derive from the soil insufficient sustenance, when they fail to obtain it by hunting and fishing on the lands of the planters.
>
> Thus they are considered a real nuisance, and it is necessary not to overlook the fact that the situation will become still more serious when into this mass of pariahs are merged the million and a half of slaves who at present constitute the working force on the large plantations.

Last year the same provincial assembly appointed a special committee to confer with the General Government on this important subject. In the preamble to the resolution to this effect, I find the following in reference to the class of population described in the document just quoted:

> They live in complete idleness, committing depredations on property, taking no part in the social communion, and neither producing nor consuming; they will become a disturbing element in society when the means of subsistence grow scarcer.

It is evident that much time must elapse before persons of this class can become useful citizens.

As to immigration, it unfortunately does not yet flow into the country on the grand scale which is so much desired. During the six years ending December 31, 1885, there arrived at this port only 134,142 immigrants, which is at the rate of 22,357 per annum. Last year there arrived here 21,065. Of these immigrants, probably one-half remain in the country, and perhaps 10 per cent. devote themselves to agricultural pursuits. It will be readily perceived that the supply of laborers from this source is entirely insufficient.

The present Government is endeavoring, with strong probability of success, to improve the financial state of the country. It succeeded last year in reducing from 6 to 5 per cent. the rate of interest on part of the internal funded debt. This represents a saving of nearly $1,800,000 per annum. It has before it, however, a much more difficult task. One of the worst consequences of the financial difficulties of a nation is that they lead the energy of the people into illegitimate pursuits. Overburdened and stationary production can offer but small rewards to useful labor. The consequence is, that a large number of persons are drawn away from such labor and induced to seek their fortune in occupations that, far from being beneficial to the community, are absolutely baneful. Lotteries spring up with lamentable rapidity, and in noxious abundance; the public departments are besieged by applicants for office, and immense pressure is used to obtain grants of subsidies and monopolies. As the state absorbs the greater part of the profits of production, it is natural that those who wish to share those profits should seek them where they are to be found, that is, in the possession of the state. All this, increasing the burdens of the producers, aggravates in its turn the very evils from which it results. It is, of course, extremely difficult to remedy this morbid state of affairs. It is not easy to say on which

to avoid succumbing beneath their weight. It is not surprising then that there is a tendency to procrastinate, although every moment of delay increases the difficulties of the situation, and renders more and more gloomy the prospects of the country.

But, as I have already said, Brazil possesses vast natural resources. Let us hope that these, united to the patriotism of its people and the statesmanship of its politicians, will enable it to pass safely through the perils which now surround it. No one can desire this more earnestly than the people of the United States, who have every reason to wish for the progress and prosperity of Brazil.

STATE OF TRADE.

From what has already been said it can readily be surmised that the commercial development of Brazil, which at one time progressed favorably, is at present slow, and in some parts of the Empire absolutely stationary and even on the decline. It was hoped that the construction of railroads and central sugar-mills and generous aid to navigation would give a vigorous stimulus. Accordingly, in the last twenty years some 4,000 miles of railways have been constructed, many costly central sugar-mills have been erected, and the state now expends annually in subsidies to navigation nearly $1,500,000. The country has certainly done as much as was in its power to aid these improvements, and they have undoubtedly had much influence on trade. Although the freight rates are much too high, and although neither the railroads nor the sugar-mills, with some few exceptions, pay reasonable interest on the capital invested, and some of them do not even pay working expenses, yet they have in many ways contributed toward stimulating commercial transactions. On the other hand, however, they have helped to swell public expenses without being able to neutralize the evils caused by the undue increase of those expenses and by the present unsatisfactory state of the labor question.

Trade during the past year has in some respects been favored. Two loans made on very favorable terms by the Government enabled it to consolidate part of its floating debt and to keep out of the money market, where it has for many years exercised a most baneful influence by absorbing floating capital, which would otherwise have been employed in benefit of trade and industry.

Exchange, whose fluctuations are so injurious to trade, has this year been favorable, the value of the paper milreis having gradually risen from 17½*d*. to 22¾*d*. This has enabled many importers to liquidate with a profit transactions in which they would have otherwise lost money, increasing at the same time the profits on transactions that were already advantageous.

It has also permitted a reduction in the nominal price of merchandise, thus tending to stimulate consumption. The rise in coffee has had a beneficial effect, which is, however, partly neutralized by the [illegible] province of São Paulo, however, produced [illegible] benefit from the rise [illegible] small

During the first six months of the crop year of 1886–'87, the receipts in this market, under the stimulus of favorable prices, reached 2,227,287 bags. The estimates of the quantity still in the interior varies from 800,000 to 2,000,000 bags. The receipts in the Santos market during the same period were 1,529,055 bags, the quantity in the interior being estimated at from 700,000 to 1,000,000 bags. As to the Rio crop for 1887–'88, I have seen two estimates. According to one of these, it will not exceed 2,000,000 bags, and may not be over 1,500,000. According to the other, it will be between 2,500,000 and 2,750,000 bags.

The shipments of coffee from this port during the last five crop years were as follows:

Years.	Quantity.	Years.	Quantity.
	Bags.		*Bags.*
1881-'82	3,926,372	1885–'86	3,795,321
1882-'83	4,556,372		
1883-'84	3,219,516	Total	19,772,364
1884-'85	4,274,783	Average yearly	3,954,437

During the first six months of the crop year of 1886–'87 there were shipped 2,130,564 bags. The home consumption in this market is estimated at 10,000 bags per month. The Santos crop for 1887–'88 is estimated at from 1,000,000 to 1,500,000 bags.

The year closed with great stringency in the money market. This was due to various causes, of which the most important seem to be the following: Absorption of floating capital by newly-organized companies and by those already in existence; demand for money to move the crops in São Paulo and the northern provinces; unusually large remittances to foreign countries.

During the year thirty-two new companies, with an aggregate capital of over $25,000,000, were registered at the board of trade. Debentures and additional shares were issued by existing companies to the amount of about $15,000,000. If half the amount thus subscribed was paid up, the capital actually absorbed in this way was not less than $20,000,000. There is no complete record of the remittances made to the provinces and to foreign countries; the recorded sales of exchange on England, France, Germany, and Belgium alone amounted last year to nearly $105,000,000 against about $60,000,000 in 1885. It seems that many persons took advantage of the favorable position of exchange to make long-deferred remittances. On the whole, however, the year 1886 may be considered more than usually favorable, and were it not for the general causes which affect the financial and commercial situation of the country trade would have been very prosperous.

The total foreign and coast trade of Brazil now averages about $230,000,000 per annum. That of Rio de Janeiro amounts to about $100,000,000.

FOREIGN TRADE OF BRAZIL.

In the five years ending June 30, 1866, the official value of the foreign trade of this Empire averaged 255,035,080,000 reis per annum, which

causes to which I have alluded, much slower. In the five years ending June 30, 1885, the average was 397,128,346,000 reis or less than $180,000,000. The increase in the last fifteen years does not amount to 15 per cent.

As is well known, the principal Brazilian export is coffee. In the year ending June 30, 1872, there were shipped from all parts of the Empire 4,059,739 bags of this product, and in that ending June 30, 1885, there were shipped 6,239,118 bags, of which 4,274,783 were exported from Rio de Janeiro. The increase in the exportation of coffee is chiefly due to the development of its cultivation in the province of São Paulo. Part of the São Paulo crop comes to Rio, but the greater part goes to Santos, which is becoming more and more important as a coffee market. During the year which has just closed there were shipped from Rio de Janeiro 3,580,965 bags of coffee, against 4,206,911 in 1885, and 3,897,113 in 1884. As will be seen, there was considerable decrease in the shipments in 1886. Those of 1887 will probably not be larger nor even so large, if we may accept as approximately correct the crop estimates to which I refer in another part of this report.

The prices varied during the year from 2,800 to 6,200 reis per 10 kilograms, against 2,930 to 6,000 reis in 1885, and 3,130 to 6,600 reis in 1884.

Owing to the more favorable rate of exchange the rise in coffee is greater than is apparent from the above statement, if this be taken into consideration. The extreme prices per bag are as follows:

1884	$7 70 to $14 24
1885	6 68 to 13 68
1886	7 56 to 16 74

The average prices of medium grades, per bag, are as follows:

1884	$11 14
1885	9 06
1886	12 50

The receipts were 3,506,215 bags, against 4,252,606 in 1885 and 3,617,453 in 1884. The year closed with a stock of 220,000 bags, against 387,000 in 1885 and 225,000 in 1884.

On the list of Brazilian exports sugar occupies the second place. The exportation fluctuates very much, as is shown by the following statement:

Annual average for the five years ending June 30.	Tons.
1874	306,571
1882–'83	162,910
1883–'84	315,141
1884–'85	259,367

The sugar industry of the country is at present in a very precarious condition. In the Brazilian Senate last year a member of that body mentioned having received letters from Bahia stating that in that province sugar was selling at prices that did not pay for grinding the cane. In Pernambuco, which, like Bahia, is one of the principal sugar-producing provinces in the Empire, four central sugar-mills, recently established at a cost of over $300,000 each, were [illegible] dead loss, the receipts

a telegram to Parliament declaring that it was necessary to convoke a general convention of merchants and planters to deliberate on this question, to suspend the collection of export duties, and to obtain a reduction in freight rates as the only means of saving the agricultural interests of the province from total ruin. In the Chamber of Deputies Mr. Thomaz Coelho, who represents in that house the sixth district of the province of Rio de Janeiro, and who was at one time minister of agriculture, stated that it costs in Brazil 175 reis ($8\frac{3}{4}$ cents) to make a kilogram of cane-sugar, nearly 4 cents per pound, while in Germany the same quantity of beet-sugar can be made for 130 reis, which is about 3 cents per pound. He suggested that the Government should endeavor to obtain from the United States a reduction in the duty on sugar, reducing in compensation that on kerosene and other American products.

Cotton formerly disputed with sugar the second place among Brazilian exports, and in the fiscal year of 1871–'72 there were exported from the Empire 53,589,838 kilograms of this product, equal to 261,762 bales of 450 pounds each. Recently the exportation has greatly diminished, as may be seen by the following statement of the quantity exported in the three years included between July 1, 1882, and June 30, 1885.

Years.	Kilograms.	Bales.
1882–'83	28,277,756=	138,700
1883–'84	26,565,257=	130,500
1884–'85	18,246,510=	89,400

A limited quantity is consumed in Brazilian factories, some of which, however, import thread from Europe.

The exportation of tobacco increases, but less rapidly than formerly. There were exported 4,609 tons in 1860–'61, 12,835 tons in 1871–'72, and 19,632 tons in 1884–'85.

The exportation of india-rubber constantly increases and constitutes the principal source of wealth of the provinces of Para and Amazonas. The high prices which prevailed between 1865 and 1883 gave a great stimulus to production, and the supply of labor for gathering the rubber has for some years been steadily increased by a considerable current of immigration into the Amazonian provinces from the neighboring province of Ceará.

Hides constitute an important export from this Empire, but the quantity does not increase, amounting to 47,267,000 pounds in 1883–'84 against 47.847,000 pounds in 1871–'72.

The six products which I have mentioned constitute over four-fifths of the total exportation of the Empire, and in 1884–'85 coffee alone represented over two-thirds of the total value of the exports.

The principal imports are cotton, woolen, linen, and silk fabrics, dried beef, wines, coal, machinery and tools, iron and steel, flour, paper goods, jewelry, oils, boots and shoes, butter, pine, salt fish, lard, drugs and chemicals.

Official value of the foreign trade of this port during the years 1885–'86.

Countries.	Exportation from Rio de Janeiro.	Importation into Rio de Janeiro.	Total.
Argentine Republic	$792,047 86	$2,474,826 07	$3,266,873 93
Austria	1,855,643 02	45,333 99	1,900,977 01
Belgium	645,234 64	2,396,750 17	3,041,984 81
Cape of Good Hope	533,615 68	341 26	533,956 94
Cape Verde Islands		104,448 11	104,448 11
Channel	94,950 44		94,950 44
Chili	32,994 24	45,476 24	78,770 48
France	3,073,728 84	5,337,795 57	8,411,524 41
Germany	4,388,167 64	4,306,549 96	8,694,717 60
Great Britain	2,378,907 72	17,874,508 60	20,253,416 32
Holland		42,994 62	42,944 62
Indo-China	489,433 40	556,673 71	556,673 71
Italy	9,450 00	362,847 42	852,280 82
Mediterranean			9,450 00
New Britain	162 00	246,365 08	246,365 08
New Zealand	97,067 27	52,723 88	52,885 88
Portugal	10,962 00	2,768,386 78	2,865,454 05
Russia	1,615 95	30,487 50	41,449 50
Sweden	26,743,763 70	93,728 12	95,044 07
United States	433,656 02	3,145,863 34	29,889,627 04
Uruguay	29,756 89	4,993,985 29	5,427,641 31
Other countries		173,977 35	203,724 24
Total	41,611,157 31	45,054,213 04	86,665,370 35

It must be remembered that the official value of the imports may vary widely from their real value. The official valuation of a given quantity of merchandise of any kind does not correspond to the market prices, and changes only whenever the tariff is revised. This results from considering the specific duties collected by the custom-house as a certain percentage of the respective value.

To make clearer what I have just stated I will give an illustration. As mentioned in my last annual report, the price of kerosene oil in first hands varied in this market in 1885 from $2.36 to $2.96 per case of ten gallons. Its value, then, before payment of the duty of $1.06 per case, is from $1.30 to $1.90. The duty, which is specific, is supposed to correspond to 30 per cent. of the value of the article, or, including the additional duty, 48 per cent. The official value, then, of a case of kerosene was $2.20, while the real value never exceeded $1.90, and was sometimes as low as $1.30.

The official valuation of exports, however, is more accurate, the same being obtained from a weekly appraisement made of a given quantity of each article.

The following is a statement of the quantity and official value of some of the principal articles imported through the Rio de Janeiro custom-house in the year 1885–'86:

Boots and shoes.—993,079 pairs; official value, $750,345.

Butter.—Weight, 2,361,950 pounds; official value, $563,647. The greater part comes from France.

Coal.—Weight, 242,828 tons; official value, $2,015,523. About two-

official value, $378,543.

$10,077,656.

constitutes about two-fifths of the importations from those two countries.

Flour.—425,763 barrels; official value, $1,705,181. The greater part comes from the United States.

Iron and steel.—Weight, 8,316 tons; official value, $2,015,523. About two-thirds come from England.

Kerosene oil.—2,514,670 gallons; official value, $626,262. This article comes exclusively from the United States.

Lard.—Weight, 2,416,260 pounds; official value, $296,541. This article comes from the United States. In some years, however, small quantities are imported from other countries.

The principal competitor of the American lard is the Brazilian article, which, since 1879, has caused a considerable decrease in the importation from the United States. To show the effect of this competition and the consequent expediency of freeing this and other American products from all unnecessary burdens, and offering them every facility for reaching the consumer at the lowest possible cost, I give the following statements of the importations since that year:

Years.	Quantity.	Years.	Quantity.
	Pounds.		*Pounds.*
1879–'80	5,043,251	1883–'84	1,850,228
1880–'81	3,256,721	1884–'85	2,915,367
1881–'82	2,701,865	1885–'86	2,416,260
1882–'83	1,763,462		

The following statement of the extreme quotations from 1879 to 1886, compared with the above statement of the quantities imported, shows how the demand is regulated by the rise and fall in prices:

Years.	Price per pound.	Years.	Price per pound.
	Cents.		*Cents.*
1879	13¾ to 14⅛	1883	18¼ to 22½
1880	12¾ 16½	1884	17¼ 20¾
1881	15⅞ 21⅛	1885	14¼ 18¾
1882	16⅛ 25½	1886	14½ 16¾

When American lard is cheap it is preferred to the Brazilian article, and also substitutes to a certain extent *toucinho*, or salt pork of this country, which is much used in seasoning food. The recorded receipts of Brazilian lard in this market during the year 1886 were 2,427,409 pounds, and those of *toucinho* 7,461,254 pounds.

Machinery and implements.—Official value, $1,605,735. This trade is susceptible of being largely increased.

Silk fabrics.—Weight, 120,650 pounds; official value, $705,722. These goods come chiefly from France.

Linen fabrics.—Weight, 8,890,152 pounds; official value, $1,420,978. Three-fifths of these goods come from England.

Woolen fabrics.—Weight, 3,500,735 pounds; official value, $3,034,676. About half of these goods come from Eng[illegible]
from Germany [illegible]

The principal exports during the same year were the following: Coffee, 3,637,066 bags, valued at $39,072,475; diamonds, 1,510, valued at $94,468; gold, $1,202,980; hides, 9,717,400 pounds, valued at $425,799; sugar, 4,372,804 pounds, valued at $147,911; tobacco, 3,838,243 pounds, valued at $436,099.

Between the official and commercial statistics of the exportation of coffee there is a difference of 158,255 bags.

TRADE BETWEEN BRAZIL AND THE UNITED STATES.

Twenty-five years ago the trade between the United States and Brazil amounted to less than $15,000,000 per annum; now it exceeds $50,000,000. The growth of this trade is due principally to the increase in the consumption of coffee in the United States. Although the transactions in other kinds of merchandise have not kept pace with the coffee trade, they have undoubtedly been influenced thereby to a certain extent; for, while shipments of American merchandise to Brazil amounted in value to only $3,000,000 in the year 1863–'64, they now exceed $7,000,000.

In the year 1885–'86 the import trade between the United States and this port alone amounted, according to the Brazilian official statistics, which I give in another part of this report, to over $3,000,000, *i. e.*, they were equal in value to the American merchandise imported into Brazil in the year 1863–'64. I have not been able to obtain complete statistics of importation of American merchandise into Rio de Janeiro during the calendar year which has just closed. The following, however, shows the quantity and prices of some of the imports from the United States during that period:

Butter.—Thirty-five kegs and 1,244 cases, against 20 kegs and 539 cases in 1885 and 125 kegs and 844 cases in 1884. The extreme quotations for assorted cans were from 28 to 36 cents per pound. As I have elsewhere stated, the butter received here comes chiefly from France. Of the 52,641 cases imported last year, 46,070 came from that country. The price of the best French butter varied from 52¼ to 61¼ cents per pound. I repeat, what I said in my last annual report, that the quantity of American butter consumed here ought to be larger than it now is.

Flour.—Three hundred and seven thousand six hundred and twenty-five barrels, thus classified:

Baltimore	227,624
Richmond	44,875
Western Interior	35,126
Total	307,625

The extreme quotations were as follows:

	Per barrel.
Western Interior	$5.40 to $7.65
Baltimore	5.51 to 8.77
Richmond	6.30 to 8.77

There were also imported 70,101 barrels of flour from the River Plate,

Kerosene.—Three hundred and eighteen thousand two hundred and fifty cases, of 10 gallons each. The quotations varied from $2.76 to $3.25 per case. The consumption of this article steadily increases, though last year, in comparison with 1885, there was a slight decrease.

Lard.—Fifty-two thousand six hundred and twenty-nine kegs and 49 cases against 64,185 kegs and 427 cases in 1885. Elsewhere I treat at some length of this article.

Pine.—Eleven million fifty-five thousand four hundred and ninety feet against 12,630,839 in 1885. Spruce and pitch pine are sold in this market by the dozen planks, while white pine is sold by the foot.

The quotations varied as follows: Pitch pine, $16.65 to $19.12 per dozen; spruce pine, $17.12 to $17.34 per dozen; white pine, 4½ to 5 cents per foot.

There were also imported 23,768 dozens of Swedish pine, which was sold at from $14.17 to $18.45 per dozen.

Owing to the stimulus given to building in this city by the street railways, facilitating communication with the suburbs, the consumption of pine greatly increased and the importation rose from 4,119,246 feet in 1870 to 16,838,730 in 1879. It now averages about 12,000,000 feet per annum.

Rosin.—Fifteen thousand two hundred and eighty-seven barrels against 7,728 in 1885. Quotations, from $2.47 to $5.17 per barrel.

Turpentine.—Five thousand six hundred and forty-one cases against 4,125 in 1885. Quotations, from 8½ to 11½ cents per pound.

Besides the seven articles enumerated, there are imported others whose price and quantity are not given in the statistics which I have been able to obtain. The following conjectural estimate of their value seems to be approximately correct: Cotton fabrics, $200,000; drugs and chemicals, $30,000; machinery and implements, $300,000; paper goods, $30,000; miscellaneous merchandise (embracing some fifty or sixty articles), $250,000. In view of these statistics the real value of American merchandise imported into Rio de Janeiro may, I think, be safely estimated at $4,000,000. This merchandise pays duties to the amount of about $1,000,000, which elevates its value in first hands to about $5,000,000. According to the records from this consulate-general the exports from Rio de Janeiro to the United States were in 1886 as follows:

Quantity and value of the exports from Rio de Janeiro to the United States for the four quarters of the year ended December 31, 1886.

[As taken from the records of the consulate-general.]

Articles.	Quarters ending—			
	Mar. 31.		June 30.	
	Quantity.	Value.	Quantity.	Value.
Coffee.....bags..	691,362	$6,435,912 17	363,552	$3,589,534 19
Hides:				
Dry.....number..	100	381 39	.....	.....
Wet.....do....	7,396	39,747 61	.....	.....
India rubber.....package..	1	52 75	.....	.....
Do.....cases..	.....	.....	3	89 30
Do.....bags..	.....	.....	.....	.....
Do.....barrels..	.....	.....	.....	.....
Do.....kilos..	.....	.....	.....	.....
Rosewood.....logs..	.....	.....	314	[illegible]
Sundries.....				

Quantity and value of the exports from Rio de Janeiro, &c.—Continued.

Articles.	Quarters ending—				Total for the year.	
	Sept. 30.		Dec. 31.			
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Coffee.....bags..	510,873	$6,521,207 09	614,512	$8,721,102 78	2,180,299	$25,267,756 23
Hides:						
Dry.....number..	.....	.....	700	3,036 29	800	3,417 68
Wet.....do....	.....	.....	.....	.....	7,396	39,747 61
India-rubber .....package..	22	2,286 72	.....	.....	1	52 75
Do .....cases..	.....	.....	144	10,582 45	25	2,376 02
Do .....bags..	.....	.....	4		144	10,582 45
Do .....barrels..	.....	.....	500		4	
Do .....kilos..	.....	.....	29	1,490 16	500	15,535 24
Rosewood .....logs..	403	9,142 52	.....	740 91	746	11,373 93
Sundries.....	.....	154 09	.....	.....	.....	.....
Total.....	.....	6,532,790 42	.....	8,736,952 59	.....	25,351,841 91
Total for preceding year.....	.....	6,503,439 11	.....	7,797,657 08	.....	26,808,765 03
Increase.....	.....	29,351 31	.....	939,295 51	.....	1,456,913 12
Decrease.....	.....	.....	.....	.....	.....	.....

In the sundries mentioned in the foregoing table are included the following articles: Bones, bone-ash, hide cuttings, jars and horn piths, old iron rails, scrap iron, paving stones, sarsaparilla, tapioca, and wine. Of the coffee exported, 335,032 bags were shipped to Baltimore, 244,835 to New Orleans, 47,598 to Galveston, 5,000 to Charleston, 5,632 to Savannah, and the rest to New York.

The following table shows the number of American vessels engaged in the trade with Rio de Janeiro in the year 1886:

Navigation of the United States at the port of Rio de Janeiro for the calendar year 1886.

[As shown by the records of the consulate-general.]

Quarter ended—	Entered.					Cleared.				
	Steamers.		Sailing vessels.		Total tonnage.	Steamers.		Sailing vessels.		Total tonnage.
	No.	Tons.	No.	Tons.		No.	Tons.	No.	Tons.	
Mar. 31.....	3	5,758.98	16	7,717.66	13,476.64	4	7,678.76	20	9,297.24	16,976.00
June 30.....	3	5,861.56	16	8,452.02	14,213.58	3	5,861.56	19	10,589.74	16,451.30
Sept. 30.....	3	5,741.66	20	10,487.55	16,229.21	3	5,741.66	17	8,475.21	14,216.87
Dec. 31.....	4	8,727.02	30	15,105.36	23,832.38	4	8,727.02	26	12,251.35	20,978.37
Total.....	13	26,089.22	82	41,762.59	67,851.81	14	28,009.00	82	40,613.54	68,622.54
Total for 1885.....	14	22,806.44	90	47,885.99	70,692.43	15	24,707.90	84	42,381.51	67,089.41
Increase.....	.....	3,282.78	.....	6,123.40	.....	.....	3,301.10	.....	.....	1,533.13
	1	.....	8	.....	2,840.62	1	.....	2	1,767.97	.....

eign Relations by Mr. S. O. Thacher, late Commissioner from the United States to Central and South America, in my conception states the matter well, truly, and forcibly. He says:

> The question before the committee is one whose magnitude and far-reaching importance cannot be too earnestly considered.
>
> It brings into view questions affecting our own welfare as a nation, casting light upon the solution of a grave and ever urgent problem. The industrial outlook of our land is not one of entire sunshine. There are more laborers than there is work for them to do; where one man is discharged from almost any of the manual occupations there waits one to take his place.
>
> The inflow of laborers from other lands to this is no more a great need. In every department of industrial life there is production beyond consumption. Labor is struggling to hold its position and is fearful of being displaced or of losing its present ground.
>
> The products of farm, shop, and factory were never within the memory of this generation so low as they are now. On the whole, as never before, our future growth, peace, and tranquillity depend on finding more consumers for what we have to sell. * * * In vain do we turn our eyes to any other part of the world for a people who at once need and are willing to take from our farms, looms, forges, and wells of mineral oils that which we are able to produce and spare. The nations of Central and South America offer not alone the most alluring and most profitable markets whereby to relieve our excessive productions, but there is no other field.
>
> * * * * * * *
>
> The easy way and the only way out of the complications and disappointments that yearly are being intensified by the diminishing profitableness of all of our industrial enterprises is to seek that market which so cordially invites, and from which, with strange fatuity, we have for the last twenty-five years diverted our thoughts.
>
> * * * * * * *
>
> Peace, prosperity, and the manifold blessings of contented producing classes wait on the footsteps of any measure that shall insure to our laborers, to our farmers and manufacturers a fair chance in the markets of Central and South America. To-day they are nearly closed against them.

Of all American nations Brazil is undoubtedly, next to the United States, the most important, and is, therefore, the one with which we should most sedulously endeavor to develop commercial relations.

It is true, as I have taken some pains to show, that the present financial condition of the Empire is not encouraging, and that trade is necessarily affected thereby. But this does not alter the essential facts that, notwithstanding the financial embarrassment of the country, its foreign trade amounts to nearly $180,000,000 per annum; that it ships to us annually products to the amount of over $40,000,000, and that it will probably purchase American merchandise to the same amount if we succeed (and with proper effort and energy I feel sure we will), in convincing the Brazilian that we can sell to him on more favorable terms than the nations of Europe are now doing. It seems to me, then, that in view of the very large amount of Brazilian products exported to the United States, and the comparatively small amount sold by us to this Empire, we should make some positive and systematic effort to obtain a larger share of Brazil's import trade than we now possess, always bearing in mind in this matter that it is necessary that our efforts should be cautious as well as earnest, vigorous, and persistent.

The obstacles to a more rapid development of our commercial relations with Brazil are certainly formidable, but by such efforts they can, and no doubt will, be overcome, and, in my opinion, it is worth our while to make them. The European dealers and manufacturers have at present largely the control and possession of this market and

States and Brazil is rapid, frequent, punctual, and cheap steam communication. "Steamship lines," say (truthfully, as far as my observation extends) Commissioners Thacher and Curtis in their final report, "carrying goods and passengers at low rates from our ports are the talisman to the desired end. Without them efforts for increased trade are nearly all thrown away."

It is, therefore, in my judgment, not only expedient to render still more efficient the present line of steamers now running between New York and the principal ports of this Empire, but also to establish a line between those ports and New Orleans.

Fully impressed with this conviction, I have exerted myself to promote the realization of the idea. To this end, I have discussed the matter with some of the capitalists of this city, and was gratified to receive from them assurances of their willingness to co-operate.

While on a visit last year to the United States, with a view to interesting our people in this matter, and in the hope that it might lead to some definite and positive action on the subject, I visited Mobile and New Orleans, met and discussed this project with the chamber of commerce of the former city, and the Cotton and Produce Exchanges of the latter. Committees were appointed by each of these bodies to consider and report upon the matter, but, as yet, I am not advised as to what has been done. In my opinion the two lines are absolutely necessary for the full development of our commercial relations with this Empire, and need in no way conflict, but in many respects could and no doubt would be made beneficial to each other.

When the trade between Brazil and the United States shall have received the development of which it is susceptible, there will be no lack of freights to support both lines. In the mean time, what is extremly desirable is to relieve this trade of all unnecessary burdens.

Without disputing the highly favored position of New York as our great commercial metropolis, it seems to me undeniable that New Orleans is much better adapted to serving as an entrepôt for the interchange of many of the products of Brazil and the Western and Southern States. There is no good reason, for example, why coffee should reach the consumer in the Mississippi Valley burdened with the expense of passing through New York, nor is there just cause for subjecting to a similar burden the Western flour and lard intended for the consumer in Brazil. If this trade can be relieved of its present burdens, the profits of the producer and the purchasing power of the consumer will be proportionately increased. Trade will thereby receive a stimulus which cannot fail to be beneficial not only to the West and South but also to the whole country.

We cannot hope to build up trade with Brazil if we begin by loading it with unnecessary burdens. If we reflect that there arrives at Rio de Janeiro nearly every day steamers from Europe, it can readily be perceived that a monthly steamer from the United States cannot successfully compete with them. In trade, time is often an essential consider- orders will nearly always be given to those who can fill ible then to render more frequent it seems to

Other nations have comprehended the importance of giving such assistance. England, between 1862 and 1885, paid no less than £4,500,000 for the conveyance of the mails between the ports of Great Britain and those of Central and South America. Germany has recently granted a subsidy to three new lines of steamers intended to develop its commercial interests in foreign countries, paying 4,000,000 marks to the principal lines and 100,000 to the subsidiary line.

The line of steamers between Antwerp and South America receives the minimum compensation of 250,000 francs per annum. It is not only necessary that steamship lines receive some assistance, but that they may be able to count on it for a long and fixed period. No capitalist possessing common prudence (and this they usually possess in an eminent degree) will embark in any business unless he thinks he can see his way for many years ahead, especially in a business like this, which has to be built up gradually. After the two lines of steamers have been put on a sure footing every effort should be made to render them as useful as possible. For this purpose it is necessary in the first place that they reduce passenger and freight rates to the lowest possible figures.

I do not think sufficient attention has ever been given to the passenger trade on the steamers plying between Brazil and the United States, and yet this is, in my conception, a matter almost as important as cheap freights. Intervisiting is a wonderful promoter of commercial as well as social relations, hence the necessity for a low passenger rate between the United States and Brazil. It must not be supposed that the American manufacturer has only to introduce his goods into this market to obtain for them a ready sale. They will meet with vigorous competition, to overcome which much canvassing will be necessary. It is likewise of the utmost importance that the manufacturer study the market and sedulously endeavor to learn and supply the peculiar wants of the people. But even this will not be of itself sufficient. It is entirely impossible for the foreign merchant or canvasser in the necessarily short period allotted to him, no matter how shrewd, judicious, and experienced he may be, to form a thoroughly correct opinion of the situation. Experience has demonstrated not only here but elsewhere the correctness of this proposition.

"Resident merchants," say Commissioners Thacher and Curtis, "offer the best means to introduce and increase the use of goods. This is no experiment. It has resulted favorably in almost every city of South and Central America which we visited, and it has been tested over and over hundreds of times by German, English, and other foreign peoples. Mere drummers," they add, "in soliciting are nearly a total failure in either gaining or holding trade in these countries."

What these gentlemen assert was, as I am informed, thoroughly demonstrated in this market in the years immediately following the Philadelphia Centennial Exhibition, where the exhibit made by Brazil attracted much attention, and led to numerous attempts of American manufacturers and dealers to introduce their goods into this country.

Many of the persons making such attempts, finding at that time the views of resident merchants more or less colored by the desires and interests of the latter, sought to avoid this difficulty by disregarding these views and dispensing with the assista[illegible]

themselves, after much worry, vexation, and loss of time and money, compelled to withdraw, disgusted and disheartened, from their attempts. The wish to prevent, as far as possible, a repetition of such facts, which certainly tend to impede the development of commercial relations, leads me to suggest the expediency of establishing here an information office, with branches in our cities that are interested in Brazilian trade. The business of such an office would be to collect and circulate information useful in promoting trade; to receive, exhibit, and distribute samples, catalogues, &c.; and even to fill orders whenever they should be too small to be worth the attention of commission merchants.

The Americans who settled in Brazil, and to whom allusion has been made in some of my former reports, can, I think, be advantageously utilized in the introduction of American goods, especially improved agricultural implements and machinery—which constitutes one of Brazil's greatest needs, and which, perhaps more than anything else, except immigration, will enable it to overcome the financial difficulties which now surround it.

The implements now employed in agriculture here (I do not allude to the machinery used on the plantations in preparing the products for market, these being in many instances both costly and efficient) are few and imperfect; but the planters are accustomed to them and will not abandon them for others until the superiority of the latter shall have been practically and thoroughly demonstrated and the laborers instructed in their use. The trade in agricultural implements and machinery is now in the hands of persons who, having no knowledge of farming, know nothing of the practical value of the goods they handle, though they may have long experience in selling them. Many of the articles which they offer for sale are entirely unsuited to the country, and their importation only serves to check instead of promoting this branch of trade.

A letter recently received from a São Paulo planter by a gentleman in this city clearly and forcibly depicts the desires and perplexities of the writer, who is a representative of a large class of intelligent Brazilian agriculturists, anxious to improve the system of culture to which they are accustomed. Such men, if they be supplied with really good machinery and be taught to use it properly, will not only prove good customers, but will moreover gradually enable the spirit of progress to penetrate another class which is at present thoroughly wedded to the old methods and has no aspiration for any improvement.

The writer says:

> The importation of North American machinery into this country has been so badly conducted that the implements we have received seem to have been made only for sale and not for use—worthless plows, corn-shellers which break with the slightest shock, and other instruments which certainly cannot be the same as those employed in North American agriculture, of whose astonishing achievements by means of improved machinery we have such wonderful reports.
>
> I therefore desire your assistance in obtaining what I need. In the first place, please let me know the price of an improved corn-planter laid down in Campinas, inform me whether it can be so graduated as to be used for planting rice and [illegible] kinds of stump-pullers there are, and which [illegible] in this city (Campinas). [illegible] inform me

It is evident that only a practical farmer could select the machinery required by this gentleman and instruct his laborers in its use. Therefore, I repeat that there can be no better canvassers than those American settlers to whom I have alluded, who, speaking the language of the country, and being intelligent agriculturists, can be readily taught to comprehend and explain the latest improvements in this line of goods, and select such as are best adapted to the wants of the Brazilian planter.

Besides establishing agencies and employing canvassers who thoroughly understand the Portuguese language, the goods they handle and the wants of the country, American manufacturers can advantageously use many other means of creating a demand for their merchandise and building up trade with Brazil.

Judicious advertising, the circulation of catalogues in the Portuguese language, the exhibition and distribution of samples, are all excellent ways of making their goods known to the Brazilian public.

I think they would find it worth their while to publish a periodical in Portuguese expressly for this purpose. A weekly or monthly illustrated paper, containing cuts and descriptions of machinery and implements, with a complete news summary and variety of entertaining matter, would be well received by the Brazilians, especially the rural population, and would prove a valuable advertising medium.

This paper might be published under the direction of the information office, if, as I suggest, such an office should be established. There might also be published in English, for the benefit of merchants and manufacturers, a paper intended to disseminate information concerning Brazil.

Very little is known of this country in the United States, and many of our people even suppose that Spanish is the national language of Brazil.

This error is not confined to the ignorant, but is shared by many persons otherwise well informed. I was recently much amused to find it in an address delivered by a learned lecturer to an intelligent audience in one of our principal cities. What made the mistake more ludicrous were the lecturer's allusions to the erroneous impressions concerning South American countries; impressions of whose prevalence he pointed out several instances in works which he quoted. Unwittingly he had already demonstrated the prevalence of such errors.

On the important question of building up trade with Brazil there still remains much to be said, and in my future reports I shall frequently take occasion to return to the subject.

H. CLAY ARMSTRONG,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Rio de Janeiro.

CHILI.

Report of Consul Romeyn.

CHOLERA.

The new year has opened very inauspiciously for Chili, Asiatic cholera having been transmitted across the Andes from the Argentine Republic; and notwithstanding the energetic efforts of the executive authorities to confine the disease to the places where it first made its appearance, it has gradually and steadily spread, until now undoubted cases of the epidemic have occurred on traveled routes within a short distance of this city (Valparaiso). If it should become generally prevalent, which seems more than possible, the circumstance will have a most depressing effect on the trade of the country, small, even, as it now is.

TRADE WITH THE UNITED STATES.

During the last two or three years the excessively large accumulated stocks of imported goods have been gradually disposed of, and this branch of business is, in consequence, in a healthier and more satisfactory condition than for a long time past. Importers and consignees, generally speaking, have abstained from speculative adventures, and have confined their operations almost exclusively to the actual requirements of the markets. This will be more clearly shown by a few statistical figures.

In 1883 imports represented a value of $61,096,539 as compared with $59,462,154 in 1884 and of $41,969,225 in 1885. The imports from the United States in 1883 represented a total value of $3,601,492 as compared with $4,160,570 in 1884 and of $2,721,265 in 1885. The falling off of 34.59 per cent. in 1885 from the value of the imports of 1884 was principally in the following articles:

Articles.	Decrease.	Articles.	Decrease.
Refined sugar	$96,023	Dressed lumber	$90,775
Cotton flannel	76,021	Lard	41,098
Twilled cotton bagging	90,737	Railway plant, &c	858,789
Rough lumber	62,088	Cotton shirtings	101,550

The exports from this country to the United States in 1885 amounted to the value of $1,626,773 as compared with $1,336,315 in 1884 and $1,666,978 in 1883. In the exports to the United States in 1885 there were included $28,650 scrap iron for San Francisco, Cal.; $19,137 common wool; $63,827 merino wool; $88,909 nitrate of soda; $60,915 of iodine.

In considering the future probabilities of trade between Chili and the United States a wide distinction must be made between our imports from and our exports to this country. The field for the former is and must continue circumscribed within narrow limits, while for the latter is relatively speaking, unlimited. It is only necessary to glance at [illegible] to perceive that it is not likely, in [illegible] will ever become

ports of this country. It is true that during the last two years or so several discoveries of manganese ore have been made, and that this is beginning to figure in the list of staple exports, but, in most cases, the trade in it is carried on upon such a small margin of profit that it is liable to be checked at any moment by a rise in freights, a steady upward tendency in current exchange, or by the adoption by Congress (which seems likely to happen at the next session) of measures for the resumption, within a short time, of specie payments.

EXTENDING AMERICAN TRADE.

The position of the United States with respect to this country in the matter of their manufactures differs widely from that with respect to the staple products of Chili. Here there is a large and ever-widening field for United States manufactures. There are business firms here, it is true, who are always ready to accept commissions to procure any kind of goods from the United States; but there appear to be few or none to push the introduction and sale of the tools and machinery, for example, in which our manufacturers excel. From time to time we find here men of the "commercial agent" or "drummer" class soliciting orders for United States goods and products; but they have done, perhaps, more harm than good, and native dealers are likely to deal cautiously with this class of trade representatives in future.

What is particularly desirable in the country are some genuine, representative American firms, especially in the hardware and machinery lines, who would push their trade only by keeping constantly on hand a stock of the best goods, and be alert to suggest alterations or modifications to home manufacturers, and to introduce new or improved articles from them suitable to the requirements of the country. It is by the establishment of houses of this kind that the English have here built up their commercial relations, and if we would develop ours with Chili to its fullest practicable extent we must adopt a similar course.

SHIPPING AND TRANSPORTATION.

In the year just ended (1886) there entered this port 14,972 passengers, by all vessels, and left it 12,558; but none of these were carried under our flag. The English, Germans, French, and Italians have their lines, and there is also a well-appointed competing Chilian coasting line, but none American. It seems to me that the time is ripe for the establishment of such on the western coast of South America. As far as native patronage is concerned there need be no fear, for American boats and seamen are favorites, as is shown in the latter case by the natives' preference for the commanders of the South American Steamship Company's boats, who are, almost without exception, Americans. And there can be no doubt that American trade would in some form follow in the wake of American steamers plying regularly.

Under present circumstances the cost of marine transportation from New York to Chili via Panama is about three times that from France or England.

COPPER.

inexhaustible, deposits of copper; but what with defective mining laws, cost of mining, smelting, conveyance to the coast for shipping, and freight charges to consuming markets, Chili can no longer compete successfully with other producing countries. In confirmation of this opinion I may mention that the receipt of the news of the resumption of the Anaconda mine at the beginning of last month had the effect of completely paralyzing this market for some days. It may seem strange at first sight that a country possessing such immense stores of mineral wealth as does Chili should be unable to compete successfully with other copper-producing countries, but the great mineral belt of the Republic is situated in the northern section, as distinguished from the central and southern, of the country. It is an arid and mountainous district, to which food for man and beast has to be conveyed from the central and more southern portions. The mines are generally at considerable altitudes; the system of mining and the appliances are generally of the most primitive kind. In hundreds of mining districts there are no roads, properly so called; and where there are railways these have been built in almost every case on so expensive a plan that they are so loaded with capital as to have to charge such high freights as to be of no benefit to mines of low "yield," and it is only with great difficulty that they can meet expenses.

A system of light, cheap railways, and the introduction and use of proper labor-saving mining machinery and appliances, would accomplish much in developing the vast mineral resources of the country, and this object is certainly well worth the careful study and attention of American engineers, capitalists, and manufacturers.

Before leaving the subject, I may mention that in the early days of mining only the very richest of ore was smelted or exported, and what was then considered of low yield, but would now be estimated as of fair, or, perhaps, high yield, was thrown aside as valueless. I am assured that in some of the old mining fields between Coquimbo and Huasco there are thousands of tons of this valuable ore lying on the surface, awaiting only capital and machinery to yield up its stores of gold, silver, and copper.

The total value of imports from 1844 to 1885, both inclusive, amounted to [consul omitted the amount!], of which the United States contributed $78,833,886. The total value of the exports during the same period was $1,192,399,512 of which amount the United States took $75,361,167.

As I have already indicated, the course of all trade will be affected to a greater or less extent by the actual visitation of cholera, but the main industry to be affected will be that of the smelting and export of copper. It is questionable if that metal could be produced in Chili, in normal times, for less than £35 per ton, and if anything should occur to destroy the influences which are now busy in keeping the rate of exchange above its true and natural value, in order to favor the exportation of copper, the position of that article in commerce may become very critical.

JAS. W. ROMEYN,
Consul.

Declared value of exports from the consular district of Valparaiso to the United State during the four quarters of the year ended September 30, 1886.

Articles.	Quarters ending—				Total.
	Dec. 31, 1885.	Mar. 31, 1886.	June 30, 1886.	Sept. 30, 1886.	
Bar copper	.....	$68,723 45	.....	.....	$68,723 45
Chinchilla-skins	.....	.....	$1,720 00	$1,258 55	2,978 55
Goat-skins	.....	.....	6,853 25	70,387 87	77,241 12
Hempseed	.....	.....	.....	3,311 95	3,311 95
Quillai bark	$39 20	3,711 54	.....	446 10	4,196 84
Scrap iron	6,775 00	.....	3,630 00	816 00	11,221 00
Sheep's wool	1,809 90	105,196 82	303,549 87	50,525 35	461,081 94
Walnuts	2,224 27	.....	5,830 54	12,759 73	20,814 54
Sundries	12,522 16	1,339 07	177 97	2,376 49	16,415 69
Total in Chili currency	23,370 53	178,970 88	321,761 63	141,882 04	665,985 08
Total for preceding year	27,348 83	165,454 53	206,531 84	2,844 35	402,179 55

REPUBLIC OF COLOMBIA.

CARTHAGENA.

Report of Consul Smith.

Heretofore it has been the custom of this consulate to dwell at length upon the subject of the exports of Colombia, and to show that, to-day, the United States is her principal customer; but when I reflect that, comparatively speaking, Colombia is buying but little from us in return, the question occurs, Why does this state of affairs exist? I am reluctantly compelled to assert that it is not the fault of the Colombians, and to add that it is due to the indifference and want of energy on the part of the exporters of my country.

In a recent report to the Department on the want of a good rice machine in Colombia, and failure of American machines to give satisfaction, attention of the public was called that this consulate would send samples of Colombian rice to any manufacturer of rice machines. Not one letter on the subject did I receive from my fellow-countrymen; but from Germany and England letters were received to the effect that my article on rice had been copied from the consular reports and circulated extensively among the manufacturing elements of those two countries, and the consulate was asked to send samples of, and all possible information on, rice of Colombia.

On assuming the duties of this post some eight years ago, I was imbued with the idea that for push and energy the Americans were far ahead of any other nationality of the earth. The insinuation that we were indifferent to trade was scorned. I thought it was only necessary to show my countrymen the great opportunities that existed in Colombia for rapid extension of their trade, and they would soon fill the country with their presence, wares, and products. Numerous let-

ing these inquiries about every topic touched upon, as faithfully and as well as we knew how. But in eight long, weary years of waiting for the coming tide, just six representatives of American manufacturers turned up, two of them patent-medicine venders, an agent for a large flouring mill, a tobacco-house drummer, a commercial traveler for a cracker establishment, and a fire-arms manufacturer. Flour is purchased from us because it cannot be bought in any other country as cheap. We have an established reputation for patent medicines. Of course chewing tobacco is an American characteristic, and we make a specialty of furnishing arms to every nation on the face of the globe. But what of our manufacturers of print-goods, sheetings, drills, and other cotton products, matches, furniture, pianos, agricultural implements, hardware, clocks, glass ware, &c.? As relates to the trade of this country, I have arrived at the conclusion, they are either utterly indifferent, or are busily occupied in filling orders for other countries.

TOO MUCH EXPECTED OF A CONSUL.

How can a consul be expected to extend the trade of his country unless he receives the aid of the manufacturers. He can only call attention to the commercial wants of the district in which he resides, and show his fellow-countrymen the advantages of cultivating trade relations with the residents thereof. If his countrymen do not deem it advantageous to follow the suggestions of the consul, then, if there is no trade, who is to blame? Truly, a consul grows tired of repeating the same things over and over again; he loses courage when he perceives his efforts are not met with in a proper manner and spirit by his countrymen, whose interest it is his duty always to serve.

When I came here the Colombians were buying river steamers in the United States. They never thought of going to England for light-draught stern-wheel steamers—to a country where there are no navigable streams suited for boats of that class. I must protest that it is not the fault of the consul that the Colombians now prefer and are giving their orders for English-built boats in preference to those made in the United States.

Repeated attention was called in reports from this consulate that the American boats were not giving the satisfaction they should. The English-built boats consume less fuel, cost less, and are lighter built. Take the Dique Steamboat Company that runs light-draught steamers between this port and Honda, the head of navigation on the lower Magdalena River. The first steamer of this company was built in the United States. It could run very fast, but consumed an enormous quantity of fuel and carried but a small cargo. The second boat was built in England; it runs as fast as the one built in the United States, consumes half the quantity of fuel, and costs just one-half the money paid for the American boat. The result has been that American-built boats are at a discount here, and the English boat-builders are receiving numerous

[illegible] Company has pur-

Unquestionably, river-steamboat building in the United States is languishing on account of railroad competition. Then why not turn their attention—the steamboat builders—to South American rivers, where there is no opposition by land? On the great Magdalena River nearly thirty river steamers are now plying. Two other rivers in Colombia, almost equal in commercial importance to the Magdalena, namely, the Atrato and Sinu, will soon have lines of steamers operating upon them. A company, heavily subsidized by the Colombian Government, and partly American, will shortly place three steamers on the Atrato and Sinu Rivers. This company, although desiring to have its boats built in the United States, I am afraid will give the contract to an English boat-builder.

Why do Colombians prefer European cheese to ours? Because American cheese soon becomes rancid; likewise American butter. But why American potatoes and onions do not stand this climate as long as those raised in Europe, I am unable to answer, unless it is due to careless packing. To-day we witness the following in Colombian ports: Hardware coming from Germany; print goods and river steamers from England; onions and potatoes from France and Holland; cheese from England, France, and Holland; butter from Denmark; glassware from France; Yankee notions from France.

In comparison with what should be our trade with this country there is nothing imported from the United States but what cannot be well purchased in any other country. The Colombians import from the United States produce and manufactures to the value of several millions of dollars; but if our manufacturers and exporters do not keep wide awake and exhibit more energy than heretofore they will see nearly all of the trade slipping from their hands, and will make it only the more difficult for their sons to set about the task of recovering it. Great Britain, France, Germany, Belgium, and Spain are proceeding in a most practical manner to retain their present control of the trade of Colombia, and, I may with reason add, all the other Spanish-American nations. They may quarrel among themselves, but there is an unanimity of sentiment and feeling when the commercial possibilities of the United States in connection with this trade is taken into consideration. They are increasing the number of vessels in the lines of steamers already in operation, and are establishing new lines, heavily subsidizing them.

Possessing, apparently, far more foresight then the Americans, the Europeans are viewing with grave apprehension that the United States are inevitably destined to become their formidable rivals, and, realizing this, are taking the necessary steps to avert this destined competition as much as they can. The Belgian consuls, so I understand, have been especially instructed by their Government to send it complete reports as to the climate and resources of this country, and what advantages and concessions will be offered by the Colombian Government for the encouragement of Belgian emigration on a large scale. Great Britain has recently sent emphatic orders to her consular representatives to leave no stone unturned to retain and strengthen her grip on the trade of South American countries. Germany has just established a new line of steamers between Hamburg and Colombian and Venezuelan ports. It is well patronized.

necting with its New York and Havana line. The carrying trade between the United States and this Republic has heretofore been done by a British line of steamers—a most unpopular and unsatisfactory monopoly. The Atlas line, plying between New York and Colombian ports, is a corporation grown enormously rich in this trade, and has become so powerful that to compete with it requires a well-organized company with plenty of money to back it. There have been several lines started in opposition to it, but they did not last long, the Atlas Company having the longest purse.

There is strong talk of the establishment of an American line of steamers between New York, New Orleans, and Colombian ports. I am quite satisfied that such a route would in the end pay handsomely, but it must come prepared to lose money for the first six months, as it would take that time to convince the Colombian shippers that it was strong enough to compete with the British line. The projectors of the proposed line have gone so far as to ask a subsidy from the Colombian Government. I understand this Government has indicated its willingness to grant a subvention to this line, and a bill to authorize the same has already passed a second reading in the House of Representatives.

The United States possess a decided natural advantage over European nations in almost every respect, in the competition for this trade. Most of the products of Colombia are exported to our country, leaving a balance in her favor to buy our products and manufactures. The routes are twenty to thirty days shorter. Quicker sales made and returns realized. Yet, notwithstanding all these advantages, it is humiliating to see us placed at the tail end of the commercial imports into this country.

AN ENTERPRISE THAT THE AMERICANS MIGHT HAVE GOT.

A Franco-Belgian syndicate of capitalists has just secured a most important concession from this Government for the construction of two grand trunk lines of railroads between a port on the Atlantic and one on the Pacific to Bogota. The Government, in addition to a guarantee of 7 per cent. on a capital of $80,000,000, gives the company large land grants, and exempts from contribution and import duties all material and supplies that may be introduced into the country by the company. This enterprise could have been secured by American capitalists had they sent proper representatives out here to obtain it.

An enterprising American has obtained the privilege of constructing a tramway in this city, and has gone home to obtain the necessary outfit for its immediate construction.

Another American is putting up a soap factory in this city for a Colombian capitalist, and soap imported from the United States will soon cease to be known.

BUSINESS OPPORTUNITIES.

The city has a population, including [illegible] factory. There is at

A machine-shop for general repairs would pay well. All repairs to river steamers belonging to this port have to be made at Barranquilla—distant by river 160 miles—at great expense and loss of time. The necessities of the commerce demand the establishment of a furniture factory. All furniture is hand-made and very costly. There is little or no importation of furniture from abroad, on account of the enormous customs duties.

A bottling establishment for the purpose of bottling wines that come in casks and only pay a nominal duty, ales, pickles, mustard, and mineral waters, would bring handsome returns from the very start.

The city needs lighting by gas, and a contract for such can be made with the authorities of this department of the Republic.

The city has not an adequate water-supply, because the cisterns, though numerous, are kept in bad condition. Drove wells are almost a necessity. Why cannot some manufacturer of such wells send down his representative to drive one. If it proves a success, I am authorized to state that he can procure orders for the putting down of drove wells in this city to the figure of one hundred thousand dollars in this department alone. On the savannas of this department, where a million of cattle graze during the months of January, February, March, and April, water becomes so scarce that cattle have to be driven sometimes twenty miles to wells, and during this dry season thousands of cattle die from thirst.

Chemical works for the purpose of making extracts are greatly needed.

Good steamboat engineers and mechanics are in great demand. They can earn from $100 to $150 per month.

CLIMATE.

There is a very erroneous idea prevailing in the United States as to the sickly climate of Colombia. In this country all conditions of climate can be found. On the coast lands it is warm, but, with exception of the Isthmus, it is not unhealthy. On the coast there are two seasons, the dry and rainy; the dry begins in December and lasts until June. During this season the tropical heat on the coast lands is tempered by the refreshing breezes of the "trades." The prevailing diseases are of a malarial character; those of an epidemic nature rarely prevail. During the last eight years I have noted but one epidemic, that of small-pox. The number of deaths were quite small, due to the forced vaccination of all of the inhabitants. The epidemic, by these means, was promptly checked. About 300 miles distant from the coast the land is about 3,000 to 4,000 feet above the level of the sea, and the climate is a most delightful one to live in. The further you go in the interior the higher the land becomes, until you strike the plains of Bogota, where you reach an elevation of 10,000 feet above the level of the sea, and overcoats are in demand. As regards living in this consular district, I am prepared to state that if one but observes the laws of health the same here as he would in his own country he will live just as long and perhaps longer than if he had remained in his own country.

THE ROUTES TO SOU[illegible]

ranquilla, which is the river port of Savanilla, or Carthagena, a river steamer can be taken direct for Honda, which is the river port for Bogota. The fare from Carthagena or Barranquilla to Honda is $50. The best route to the celebrated diggings of "Choco" on the Atrato River is via Carthagena, which is the port of entry for said river. The fare from here to the "Choco" district, of which the mining town of Quibdo is the center, is $50 by steamer. Passage can be taken in the Atlas steamers also from New York for Colombian ports, but as the boats of this line stop a number of days at Kingston, and from there go to Colon before coming here, the route by the Pacific Mail is much more expeditious and convenient. Passage to Colombia can also be obtained by the Red D line from New York to Curaçao, and from there to Savanilla and Carthagena by the German Royal Mail, Harrison, West Indian, and Pacific lines of steamers.

MINES AND MINING.

Considerable attention has recently been drawn to the vast deposits of gold in Colombia by the publication of an exhaustive treatise on mines and mining in Colombia by Señor Vicente Restrepo, the present minister of foreign relations of this Republic.

This work has been deemed so important in the mining world, and the demand so great for it, that translations have been made in English, French, German, and Italian. Through the medium of this book of Dr. Restrepo nearly a half a million of dollars' worth of American mining machinery has within the past year been introduced into Colombia by American capitalists for the purpose of working old and developing new mines. Every steamer that arrives brings miners and prospectors from California, Idaho, Washington Territory, and other mining districts of our country *en route* to the gold diggings of Tolima, Antioquia, and the "Choco." Two companies are now being organized in Boston for the purpose of alluvial and hydraulic mining on the Atrato River in the "Choco" district. As a great rush is anticipated this season from the number of inquiries I receive each mail, I deem it a duty to caution my fellow-countrymen not to be too sanguine. It must be borne in mind that in the mining regions labor is scarce, food high, and absolutely no roads to travel on. Paths have to be cut. Mining in Arizona is but child's play in comparison to mining even in the best sections of Colombia. The language spoken is Spanish, the difficulties in passing the custom-houses, the want of facilities for transportation, are all obstacles that must be encountered at the very beginning.

EDMUND W. P. SMITH,
Consul.

UNITED STATES CONSULATE,
Carthagena. Colombia, December 28, 1886.

REPORTS

FROM THE

CONSULS OF THE UNITED STATES.

No. 83.—SEPTEMBER, 1887.

WASHI

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WEIGHTS, MEASURES, AND CURRENCY MENTIONED IN THESE REPORTS.

Name.	Country.	United States equivalent.
		25 lbs.
Arroba	Mexico	$0.193
Bolivar	Venezuela	2.6997 acres.
	Russia	$0.359
	Austria	$0.193
		2.204 lbs.

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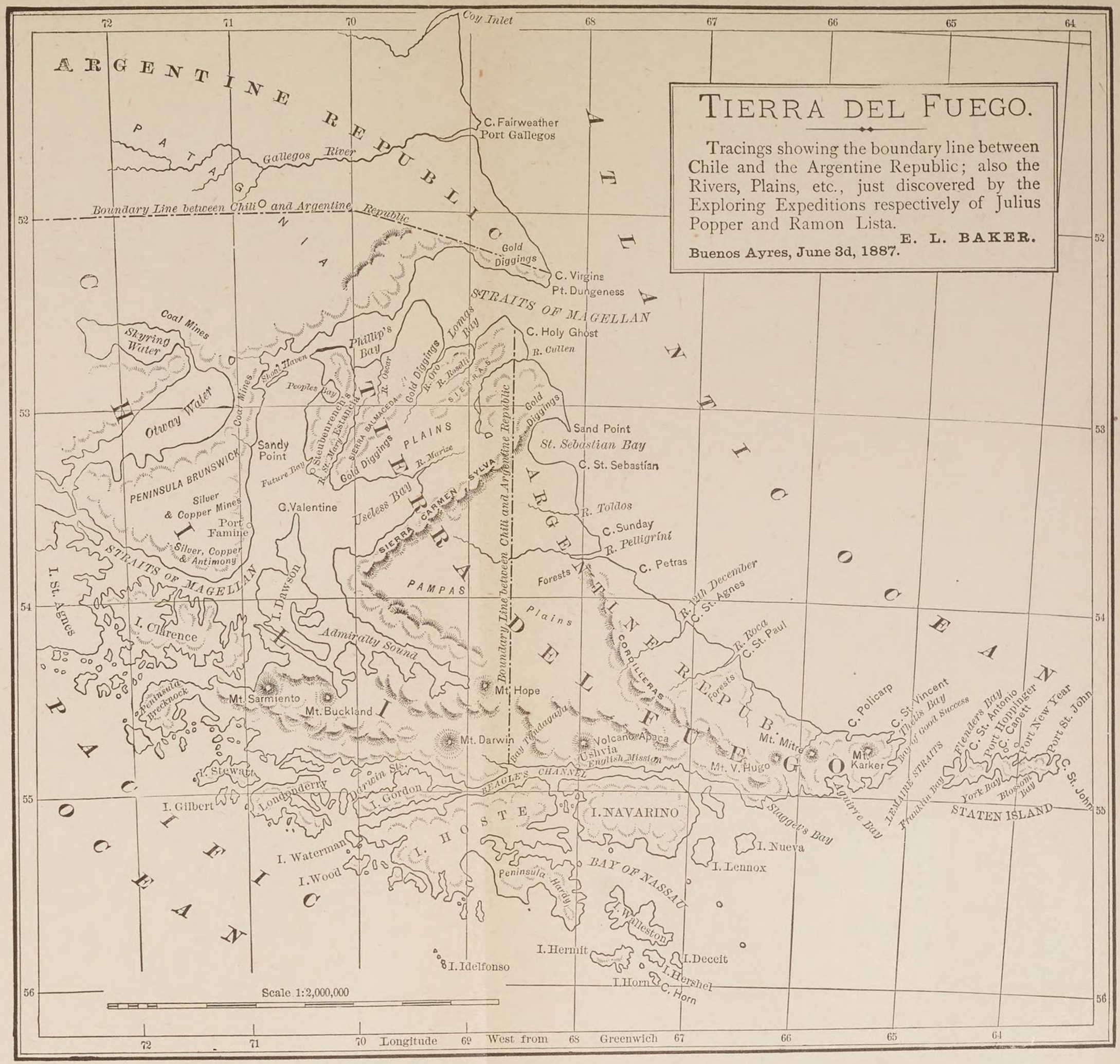
TIERRA DEL FUEGO.

Tracings showing the boundary line between Chile and the Argentine Republic; also the Rivers, Plains, etc., just discovered by the Exploring Expeditions respectively of Julius Popper and Ramon Lista.

E. L. BAKER.

Buenos Ayres, June 3d, 1887.



CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

No. 83.—SEPTEMBER, 1887.

TIERRA DEL FUEGO.

REPORT OF CONSUL BAKER.

There are few parts of the habitable globe about which so little is definitely known as "Tierra del Fuego," that vast archipelago which forms the southern extremity of the continent of South America. Since the great navigator Magellan in 1520 discovered and passed through the straits which bear his name and which separate it from Patagonia, down almost to the present time, it has been a land of mystery and uncertainty, a *terra incognita*. Even the name by which it is known is a misnomer, for though it is called "the land of fire," it is rather a land of frost. It received its appellation of "Fireland" from the simple circumstance that when Magellan passed its northern coasts, every night his attention was attracted by small fires along and through the innumerable channels which he supposed in some mysterious way appertained to the country, whereas they were lighted by the inhabitants as signals or to assist them in their nocturnal fishing operations. During the three hundred and fifty years which have elapsed since its discovery, owing to the rough seas and persistent winds which for a large portion of the year prevail along its shores, sailing vessels doubling Cape Horn have given it a wide berth; while the passage through the straits, owing to currents and devious channels, is only practicable for steamers, and these have only been taking that route within the last few years.

ITS EARLY HISTORY.

For these reasons the histor[illegible]

sess, that it was difficult to tell what to believe. Cannibals, curiously shaped beasts of prey, and strange amphibious animals were once everywhere to be found there; but they have all disappeared with the additional knowledge which we now possess of that country; and it has at last quite emerged from that mysterious, fantastic condition in which for all these centuries it has reposed.

ITS FIRST EXPLORERS.

Very few of the early navigators did more than sail along its shores, touching here and there for a few days, and occasionally having a glimpse of the inhabitants. In 1525 Garcia de Laiza repeated the voyage of Magellan through the straits, but died during the passage. In 1534 Simon de Alcazaba undertook the same route, but he was killed by his mariners in revolt, all of whom afterwards miserably perished. Then, in 1539, followed the expedition of Alonzo de Camargo, who succeeded in making the first direct passage from Spain to Chili. In 1577 the English navigator Drake also sailed through the straits, making the entire passage in seventeen days.

The same year the viceroy of Peru sent Captain Pedro Sarmiento de Gamboa with orders to examine the straits in detail, and he reported the perfect fitness of the country for the location of a colony. His report was approved by the King of Spain, who named Sarmiento captain-general of all the country south of the Straits of Magellan. Sarmiento left Seville on the 25th of September, 1581, with twenty-three sail, carrying soldiers and colonists and a full outfit for the proposed colony. Everything, unfortunately, conspired against the expedition. A number of the ships were lost in a tempest; then insubordination ensued on board the fleet. He finally reached the straits, but a continuation of contrary winds prevented him from reaching or finding the locality which he had previously selected for the colony. He returned to Rio Janeiro to recruit and replenish his stores, after which he again set sail for Tierra del Fuego. Still further mishaps, however, were in store for him, and by the time he reached the straits he had only two ships, carrying two hundred and eighty colonists and a few soldiers. He finally managed to reach a point on the peninsula of Brunswick, where he concluded to establish his colony, to which he gave the name of Jesus; but for greater security, and the better to guard against the attacks of the Indians, he founded a second settlement further down the coast under the name of Ville de Saint Philippe. The two places, under the energetic measures which he adopted, made a very promising beginning. But during one of his voyages to Rio Janeiro after supplies he was captured by Captain Drake of the English navy and taken to England, where he was subsequently set at liberty by Queen Elizabeth. During his absence the unfortunate colonists ran short of the necessaries of life, and a great number of them miserably perished by

Thomas Cavendish penetrated the straits and

few of the colonists still

propriately gave to the locality the name of Port Famine, which it has retained ever since.

After this a number of voyagers visited the straits in succession, among them Merrick, in 1589; Chidley, in 1591; Hawkins, in 1593; Oliver Van Noort, in 1598;* Siebold de Wort, in 1599, and Joris Spilbergen, in 1614; but they added nothing of consequence to the stock of information in regard to Tierra del Fuego.

In 1615 the French navigator Le Maire first passed through the strait which separates Tierra del Fuego from States Island, a strait which still bears his name, and discovered Cape Horn, which he was the first to double. About the same time Philip III of Spain commissioned the brothers Nodal to make a general reconnaissance and survey of all the coasts at the southern extremity of South America; and it is a remarkable fact that during the time it took to make these surveys those navigators did not lose a single man.

In 1695 the French Government fitted out an expedition with a view to selecting ports of refuge for their vessels on the South American coast, Captain De Gennes making the first reconnaissance. In 1698 a French company was formed for establishing colonies in the various parts of South America, and to that end Captain Beauchesnes-Gouin for two years explored the straits and the archipelago. He took possession of the principal island and called it Louis the Great. These attempts at occupation, however, were not followed up, and immediately after the accession of the Bourbon dynasty to the Spanish throne the French Government, through fear of wounding Spanish susceptibilities, desisted from its project.

There were no further explorations until 1763, when the English mariners Byron and Carteret made their famous voyages around the world. Both passed through the straits and touched at Tierra del Fuego, and in their reports rectified many errors in regard to that country which had previously been published. Byron visited the remains of the Sarmiento colony, and says he "could not understand why so delightful a spot should be called Port Famine." He further says: "Flowers, trees, and birds delight the traveler; fish abound in the waters; while lofty mountains form a magnificent background to the picture." Repassing the straits he fell in with a number of Fuegian Indians, to whom he gave biscuit and clothing, and "a woman of fair skin was pointed out to him by the rest, as if to express that she was of English origin, being perhaps the wife of some sailor or colonist cast away on those shores."

The next effort to settle Tierra del Fuego was in 1767, when Bucareli, the Spanish governor of Buenos Ayres, charged with the duty of reoccupying the Falkland Islands, which France had ceded to Spain, undertook to establish a colony on one of the islands of Tierra del Fuego, situated in latitude 54° 40′. The locality seemed to be very suitable, and the natives peacefully watched, and even assisted, the colonists in their labors; but the location was so remote from civilization, and it seemed so like a place of exile rather than of promise, that the settlement attained to scarcely any development, and it was finally abandoned. The same year Captain Samuel Wallis visited the country, and brought back the most unfav[illegible]

valleys were without verdure and the mountains without trees;" and where, indeed, "the whole land seems like the immense ruin of a former world." Admiral Anson, who also skimmed along its shores, pronounced it "the most horrible country which it was possible to conceive." Captain Cook, the famous navigator, who lost two of his naturalists in their attempts to climb one of the mountain peaks on the western coast, says: "It is the most savage country I have seen. It seems entirely covered with mountains and rocks, without the least appearance of vegetation, the mountains terminating in horrible precipices or rugged peaks reaching to an immense height. There is no place in the world which offers such desolate landscapes." King, Wyse, and Cunningham, in their reports, have painted the country in almost equally somber colors. The first affirms, however, that "the vegetation is magnificent in some places, and under the shelter of the great forests some plants are found which would be considered very delicate in England;" while Wyse speaks of the "dense forests, with trees which retain their leaves the whole year," and "of the magnificent landscapes, now smiling, now severe, which offer themselves to those who navigate the coasts of Admiralty Sound."

SURVEYS OF THE ADVENTURER AND BEAGLE—DARWIN'S REPORTS.

The most important expedition, in a scientific point of view, which ever was sent to Tierra del Fuego was that of Captain King, of the British navy, who in 1826, with two vessels, the Adventurer and the Beagle, was commissioned to make surveys and charts of the coast of South America from the River Plate to Cape Horn. Captain Stokes was at first in command of the Beagle, but upon his death in 1828 Captain Fitzroy took his place and devoted four years to the work, making a full exploration of the devious and dangerous channels of the straits. The expedition returned to England in 1830, and the surveys were published in 1832. Captain Fitzroy brought home with him four Fuegian Indians, and placed them at school at Walthamston. They were known as "York Minster," aged 26 years; "Boat Memory," aged 20 years; "Jimmy Button," aged 14 years, and "Miss Basket," aged 9 years. The second, who was the most docile and the cleverest of the party, died of small-pox at Plymouth Hospital, and was much regretted. They had all been seized as reprisals for a boat belonging to the ship which had been stolen by their people; and Captain Fitzroy promised to bring them back to Tierra del Fuego. King William IV and the Queen took much interest in them and their education, but Captain Fitzroy was unable to prevail on the Government to fit out another expedition. He thereupon chartered the brig John, of London, to carry himself and four others back to Tierra del Fuego. The Admiralty, on learning this, finally changed its decision and gave him again his old vessel, the Beagle, [illegible] project of completing a chain of meridian distances also of making botani-

that they were bad men. Fitzroy here tells us of the reflection which forced itself upon his mind, that when Cæsar came to Great Britain he found Fitzroy's ancestors dressed in skins and painted like those Fuegians. The Beagle came to anchor in the Bay of Good Success, when "Minster," "Button," and "Miss Basket" were restored to their friends. "I was flattered," says Captain Fitzroy, "at the thought that many a poor shipwrecked seaman might find friends and protectors in the Fuegians whom I had educated in England." Two years were spent in additional surveys of the coast. His labors there and elsewhere, extending over nine years, were considered of such value that the Royal Geographical Society conferred upon him its gold medal "for the first chain of meridional distances around the earth and complete surveys from the River Plate to Guayaquil." His sailing charts for the Straits of Magellan and the various channels connected therewith are still in use by sailing masters.

Mr. Darwin's part of the expedition is no less memorable and well known. The zoology of the voyage of the Beagle includes an account of the fossil mammalia, by Professor Owen; of the living mammalia, by Mr. Waterhouse; of the birds, by Mr. Gould; of the fish, by Mr. Jenyns; and of the reptiles, by Mr. Bell; Mr. Darwin appending to the descriptions of each species an account of its habits and range. Besides this, Mr. Darwin published separate works entitled "Researches into the Natural History and Geology of Countries Visited during a Voyage Around the World," "Geological Observations on South America," "Volcanic Islands," &c. The first-named work, intended for the general reader, gives some admirable chapters in regard to the Argentine Republic, and especially Patagonia. Those in regard to Tierra del Fuego, however, have a special interest, from the fact that they furnish us the first important information we have of an authentic or reliable character in regard to the physical peculiarities of the southern extremity of South America. It is evident, however, that he failed to obtain a very intimate acquaintance with the interior of Tierra del Fuego or its physical conditions. At any rate, his estimate of the country is unfavorable to the extent of being unjust and untrue. He says:

> Tierra del Fuego may be described as a mountainous land, partly submerged in the sea, so that deep inlets and bays occupy the place where the valleys should exist. The mountain sides, except on the exposed western coast, are covered from the water's edge upward by one great forest. The trees reach to an elevation of between 1,000 and 1,500 feet, and are succeeded by a band of peat with minute alpine plants; and this again is succeeded by the line of perpetual snow, which, according to Captain King, in the Straits of Magellan, descends to between 3,000 and 4,000 feet. *To find an acre of level land in any part of the country is most rare!*

MORE RECENT EXPLORATIONS.

To correct some of the gross inaccuracies and absurd blunders which have thus during all these years been furnished to the world, five years ago Lieutenant Bové, of the French navy, by permission of the Argentine Government, and partly under its patronage, made an expedition to the southeastern portion of Tierra del Fuego, and the result of his labors was a report of great value on the fauna, flora, and general characteristics of th

Fuego for over twenty-five years, and where, with his wife and children, he has devoted himself to the work of diffusing civilization and Christianity among the inhabitants. During his long missionary labors Mr. Brydges has become thoroughly identified with the country and with the singular people who occupy it, and has accumulated a large amount of interesting information in regard to both. He has recently been on a visit to Buenos Ayres, with a view to obtaining from the Argentine Government certain concessions, whereby to increase his usefulness as a missionary and to assist him in his efforts to develop the resources of that country. While in Buenos Ayres, he delivered an address on the results of his observations and explorations,* which has added very much to the sum total of exact and authentic information in regard to Tierra del Fuego. Besides this, Don Ramon Lista, a well-known explorer and a member of the Geographical Society of Buenos Ayres, has just returned from an expedition, scientific and geographical, fitted out under the direction of the Government to that part of the island which forms the eastern and southeastern coasts of Tierra del Fuego, and has brought back a large addition to the general knowledge on those subjects. Mr. Julius Popper, a man of scientific antecedents, has likewise just completed, in the interest of a mining company, an exploration entirely across the country from Useless Bay, on the west side, to San Sebastian Bay, on the east, and thence along the coast. From all these sources I have collected many facts and discoveries which refute and correct the errors and blunders of former explorers, and which may be of interest to the people of the United States.

BOUNDARY LINES OF CHILI AND THE ARGENTINE REPUBLIC.

I may premise, that on all the old charts and maps Tierra del Fuego is put down as belonging to the Argentine Republic. Subsequent to these, however, Chili set up a claim to the ownership, and insisted that the entire archipelago was a part of her territorial possessions. It would appear that the Argentine Republic had the best *paper* title, inasmuch as the boundaries of Chili, as set forth in her constitution, do not cover any territory east of the ridge of the Andes or south of the Straits of Magellan; yet, while the Argentine Republic quietly rested its case on its ancient documents and records, Chili, more enterprising or more in earnest in the matter, proceeded to take actual possession of the territory in dispute by planting colonies at Sandy Point (Punta Arena) and other places on the north side of the straits; by erecting beacons and other helps to navigation along the shores, and by establishing a government and placing a governor in charge of the country. Indeed, by gradual encroachments, Chili finally set up a claim not only to all of Tierra del Fuego but to a large part of Patagonia fronting on the Atlantic; and at last actually went so far as to seize merchant vessels loading guano under permits of the Argentine Government, at the Santa Cruz [illegible] north of the straits. This awakened the Argentine [illegible] and at once a war of

and Santiago, a treaty of limits, all the terms of which were agreed to by telegraph, was ratified, thus saving the two countries from a desolating war. This treaty was signed on the 23d of October, 1881; and by its terms the backbone of the Andes is still made the dividing line, north and south, between the two countries to the fifty-second degree of latitude; thence, however, the line is made to run almost due east to Cape Virgin, on the Atlantic coast; and then due south through Tierra del Fuego, parallel with the sixty-eighth degree of longitude. So that, for the sake of peace, Chili has obtained the lion's share of the division, securing not only a large lateral slice off of Southern Patagonia, but a very large proportion of the islands of Tierra del Fuego. Only the tongue of that archipelago, running to the eastward and including States Island, now belongs to the Argentine Republic. Cape Horn itself is now the southern extremity of Chili. By the terms of the treaty, the Straits of Magellan are neutralized and free to the navigation of all flags; but Chili still asserts and exerts her sovereignty over them.

THE ISLANDS COMPOSING THE ARCHIPELAGO.

The group of islands forming the archipelago of Tierra del Fuego lies between latitude 52° 40′ and 56° south and longitude 63° 40′ and 75° west. The largest of these islands is generally known as Tierra del Fuego, though it has been heretofore called "King Charles South Land," and the natives themselves call it "Onisin," or the land of the Onas, the name of the inhabitants. The next largest islands are called Navarino, Horte, Clarence, Gordon, Wallaston, and States Islands, besides which there is an immense number of small ones scattered through the western channels, some of them consisting merely of rocky peaks projecting out of the water. The mountainous line of the coast along the principal island is cut at frequent intervals by the sea, thus forming countless peninsulas and inlets.

Tierra del Fuego from Cape Pilar, on the west side of the group, to Cape San Diego, on the east, has a width of 352 miles; and from Anegada, on the north, to Cape Horn, on the south, it has a length of 228 miles. Thus the size of the archipelago may be put down as upwards of 80,000 square miles; about as large as the State of Kansas.

GENERAL APPEARANCE OF THE COUNTRY.

The aspect of the country, instead of being a mountain of eternal snow, as Darwin says, is exceedingly varied, presenting almost every diversity of surface, elevated mountains, deep valleys, rolling table lands, fertile plains, numerous lakes, and frequent water-courses.*

*Ramon Lista describes the island as follows: "This great southern island has been called sterile, and even uninhabitable, through an error consecrated by time. This may, to some extent, be true in reference to that part of it now belonging to Chili, but it is false and ridiculous as to that portion which lies along the Atlantic and belongs to the Argentine Republic. Those who suppose that the eastern part is a range of mountains covered with eternal snows and inaccessible from the ocean are greatly mistaken. Argentine Tierra del Fuego presents two aspects: From Cape Holy Ghost to Cape Peños there are valleys more or less extensive, covered with splendid groves and irrigated by large rivers, some of them navigable. This region enjoys an agreeable temperature, with very little snow during the winter. South of this the appearance of the

Occupying a large portion of the extreme north, and extending from one extremity to the other of the straits, are continuous chains of mountains, sometimes running into peaks several thousand feet in height. These ranges of mountains, as yet, form quite an impassable barrier by land between the northern and southern portions of the country, since their tops are not only covered with snow throughout the year, but along their sides they present a continuation of forests so dense as to be impenetrable. I suppose, however, that upon further exploration passes will be found which can be made practicable. Adjacent to these mountains on the south is a wide belt of elevated and rather barren plain, running the entire width of the island, from Useless Bay on the west to the northern part of San Sebastian Bay on the east. Then succeed elevated table lands, quite covered with forests. South of this is another chain of sierras, running from the lower part of San Sebastian Bay, almost through the center, in a southwesterly direction to Admiralty Bay. Then, to the south, the country opens into an extended plain or pampa, which occupies all the central portion of the island, and which is quite destitute of trees, except small patches here and there of hardwood and shrubs. It is covered with an abundance of rich grasses, which, in some parts, are very luxuriant and well suited for both cattle and sheep, especially the former. The extreme southern portion, again, from Cape San Diego on the east to Brecknock Head on the west is mountainous—sometimes quite Andine in appearance, some of the peaks being volcanic—with numerous glaciers and dense forests. In many places the glaciers extend from the higher valleys to the sea, breaking into immense masses, which, moving down the sides, are projected in most fantastic shapes upon each other below. Beyond these, on the west, are Mount Sarmiento and Mount Darwin, which run up to a height of 7,000 feet above the level of the sea.

GEOLOGY OF TIERRA DEL FUEGO.

The geological formation of Tierra del Fuego quite corresponds to that of Patagonia. The mountains, broken and disjointed by the convulsions of nature, with wide seas now running where they have been depressed, are but the continuation and southern extremity of the Andes; while the plains and uplands partake of the same geological characteristics as those which distinguish the Patagonian steppes. In some parts the formation is decidedly volcanic. This is especially the case in the islands of London and Clarence. In the island of Picton and in parts of Onisin pumice stone is found in large quantities. In the island of Packsaddle there are several remarkable basaltic hills, and this formation is frequent in the Straits of Ponsonby and other localities. Other igneous rocks everywhere crop out of the mountain sides. Granite is very prevalent and quartz abounds. No limestone has yet been found in the country. Iron also seems to be wanting. Some specimens of lead have been exhibited. It is said [illegible] found in Slogget's Bay and Cape Holy Ghost; [illegible] formation is merely

of the chain of hills which forms the coasts of Useless and Future Bays. Señor Fredrico Mourglier, who has had much personal experience in the country, says that "the existence of gold on the eastern coast is undoubted and only requires labor to separate it from the sands; while the northern part of Tierra del Fuego requires a practical exploration to disclose its richness." A well-known English gentleman, who now resides in Córdoba as the head of a commercial house, who was wrecked off States Island several years ago, and lived for some weeks at Good Success Bay, the extreme eastern point of Tierra del Fuego, makes the statement that he "found gold there, the rocks on the coast all being impregnated with the shining ore." Señor Felix M. Paz, the governor of Tierra del Fuego, in a communication to his Government gives an interesting account of a visit to San Sebastian Bay and of the auriferous nature of the sands at that point. He says: "The specimens we obtained are fine, very black, and when washed in a very primitive fashion we obtained leaflets of pure gold, twenty of which went to the gram." He proposes a scientific exploration of those regions, and is satisfied that "there are there the elements of a new industry which will metamorphose that desolate land." Since then other parties have visited San Sebastian Bay and fully confirm what the governor states on this subject. Indeed, judging from the formation and from the reports of various persons who have prospected there, it is believed that gold abounds along the whole extent of the Onisin chain to the Straits of Magellan and the Atlantic Ocean, and from Useless Bay to that of San Sebastian. In all that country water-courses abound, and wood in great quantities is found for fuel, thus assisting in the mineral development of that portion of the country.

CLIMATE, TEMPERATURE, ETC.

The meteorology of Tierra del Fuego is yet to be studied. The climate is certainly not the best in the world, by a great deal, but it is not as bad as it has been painted. Thus far, each voyager to that country has hastened to give us his impressions from his own standpoint, only imperfectly guessed at after a few days' sojourn. These are generally unfavorable, but I have conversed with ship-masters and passengers who have time and again steamed through the straits, and they have spoken of the delightful weather which they experienced during the entire passage. Of course, in this matter very much depends on the season; and there is no doubt that in the southern portion during the six months of winter, or what goes for winter, there is considerable wind and sleet and snow. But, after all, the thermometer proves that the weather is not so cold as it is in some of our Northern States. It is not strange that those whose systems have been relaxed by the very temperate, if not semi-tropical, climate of the Argentine Republic, should exaggerate the cold of Tierra del Fuego, since they are in a condition to suffer much more from it than those who are accustomed to a climate like that of Maine. At the same time, in a country extending through so many degrees north and south and with a surface so varied, there must be naturally considerable diversity of climate. Mr. [illegible]

the north the climate is comparatively dry, while along the southern coast it is much of the time very humid and very cloudy. While in the former region the cold of winter is much severer than in the latter, yet in the summer the mean temperature is much higher. Mr. Brydges adds that the want of sufficient heat in summer is the great drawback to the climate of Southern Tierra del Fuego, a greater inconvenience, indeed, than the cold during the winter, which has never been known to descend lower than 12° Fahrenheit, while the highest summer temperature only reaches to 75°. He says that the climate in that part of the country does not appear to be uniform, differing very greatly in different years, and the variations of a single day are often very remarkable. In Ushvia,* Beagle Channel, where he resides, destructive frosts have been known to occur during almost every month of the year, and occasional snow storms have been experienced even in January, which is the very middle of summer; so that in that portion of the country all but the hardier vegetables are an uncertain crop. The grasses, however, are sufficient to carry the horned cattle and goats through the winter, though they sometimes become very poor from insufficient food. On the coasts in the vicinity of Sandy Point the summers quite correspond to those of our own Northern and Northwestern States, affording many warm days of uninterrupted sunshine. Indeed, in all the northern portion, under a much higher temperature, the various grasses grow very luxuriantly, and potatoes, beans, peas, and generally all the common vegetables reach to great perfection. A gentleman who was for some time in the vicinity of Useless Bay during the month of November, which about corresponds to our month of April, informs me that the range of the mercury was from 40° to 65° Fahrenheit. Indeed, if it were not for the winds, which are exceedingly prevalent in all parts of the country, the climate of Tierra del Fuego would be much more moderate than that of Canada. We all know, however, that raw, damp winds are much better conductors of cold than dry weather at a far lower temperature.

VEGETATION AND FORESTS.

The nature of the vegetation of Tierra del Fuego has already been incidentally referred to. In all the pampa or prairie region there is a great abundance of sweet grasses, of several varieties, the moist climate assisting them to a growth which is in some places exceedingly rank. There are also numerous fruit-producing shrubs and vines. Mr. Brydges informs us that wild strawberries, wild raspberries, wild gooseberries, and wild grapes grow spontaneously all over the country and attain to an immense size. Besides the ordinary vegetables which I have heretofore mentioned, the natives also cultivate celery and mushrooms. Among the edible plants is a great variety of parasitic *fungi*, indigenous to the country, which generally depend from the trunks of the trees—sometimes growing to be immense masses. Their internal structure presents a series of orifices, filled with sweet juices and which the natives are very

The forests, which extend over a large portion of the country, are quite limited in variety. They contain but five kinds of trees, three of which are species of the beech, and the other two are winter-bark, which resembles the magnolia, and a species of cypress, quite peculiar to the country. Of the beech the most valuable variety is the evergreen, which produces magnificent timber with a diameter of 6 feet and an altitude of 80.* The common beech grows to almost equal proportions; while the third species, which is called aromatic, is much smaller, but produces a better wood for planking. The timber of the winter-bark, as also that of the cypress, is of little use on account of its small size. The latter, however, is represented to be a most beautiful tree and one of the peculiar charms of the country. There are twenty-five varieties of shrubs or arborets. One variety, called the hardwood (*leña dura*), with an evergreen leaf, abounds in all parts of the country. The leaf furnishes a most excellent article of food for the cattle and guanacos, while the wood is valuable on account of its fine grain, which admits of a polish like marble. Where the subsoil is rocky or full of pebbles the vegetation is sterile; where it is sandy or of clay, the country is covered with grasses, among which are found the tussock, the wild oat, and the ganga. Owing to the rankness of the vegetation, which year after year has accumulated upon itself, in some parts the surface is covered with a thick bed of swampy peat, which yields to the feet.

RIVERS AND WATER-COURSES.

While there are probably few streams in the country which are of sufficient size ever to be utilized for navigation, there is a large number of small rivers and water-courses, which carry off the rains and melting snows from the mountains, and thus assist to irrigate the lower plains. Two of the most important of these are the Rio Rosetti and Rio del Oro (Gold River), which have their sources in the northern chain of sierras, and, after coursing through deep cañons and precipitous bluffs, empty into Lomas Bay, in the Straits of Magellan. Farther to the westward is a number of creeks, which find their outlets, respectively, in Phillip's, People's, and Future Bays. Emptying into Useless Bay is the St. Mary's River, which flows southward, also from the northern sierras, along the Balmaceda range, in a remarkably tortuous channel, with immense bluffs on either side. At the southern extremity of that bay are also found the Morazza River and a number of large arroyos which drain the high lands to the eastward. On the Atlantic coast are the Cullen River and the St. Martin River, both considerable streams, the first having its outlet south of Cape Holy Ghost, and the second in San Sebastian Bay.† South of this is the Toldo River ("Rio de los Toldos"), which runs in a very crooked channel into the Atlantic. According to Mr. Lista it has a breadth of 40 to 75 feet, a rocky bottom, and a current of two to four miles per hour. Then comes the Rio Pelegrini, named by Mr. Lista for the present vice-

*Ship-loads of this timber now find a market in Buenos Ayres.

†The names of all the foregoing rivers are those which Mr. [illegible] to give them, and [illegible]

president of the Republic, which he says is the most important river in Tierra del Fuego. It is supposed to rise in the central Cordilleras of the country. Mr. Lista found great difficulty in crossing it on account of its depth and current. Its breadth is from 225 to 300 feet, with frequent small islands along its channel. Its depth is from 6 to 10 feet. It flows through an alluvial valley, whose vegetable richness is marvelous and capable of sustaining a large pastoral industry. The bed of the stream is somewhat irregular, and the explorer everywhere saw indications of the great floods which annually, on the breaking up of winter, come down from the mountains, bringing with them an immense amount of *detritus*. The current is about five miles an hour. Mr. Lista says: "I am of the opinion that it can be navigated by small steamers for many miles into the interior." Near Cape St. Agnes is another small river, which Mr. Lista has named the Rio Twelfth of September, which flows down a deep cañon, with dense forests of immensely high beech trees on each side. Near Cape St. Paul is likewise a small river, which has its source in the high lands of the interior. It is about 50 feet wide, with a very rapid current. There is abundant vegetation along its banks, while at its mouth are visible great quantities of masts and spars, the remains of ancient wrecks. Mr. Lista has given it the name of Rio Roca, from the late President of this Republic. Between this and Cape St. Vincent are several other small rivers, generally with high bluffs on each bank, and very rapid currents. The most considerable of these he has named Rio Lista, after himself. Along a part of this stream is a rich valley, with most luxuriant grasses and fine timber. On the southern side of Tierra del Fuego there are no rivers, if we except a small stream which empties into Slogget's Bay, and another which empties into the Bay of Yandagaya, "a splendid bay, which reminds one of the fiords of Norway."

ZOOLOGY OF THE COUNTRY.

Of the animals native to the country the most important is the guanaco, found only in Onisin and the island of Navarino, the large fox (*stenomys*), and two species of ground-rats or moles. Of the amphibious animals there are two species of seal and two species of otter (*nutria*). Whales and various kinds of excellent fish abound along the coast and in the different channels. The rivers also contain fish. Mr. Brydges informs us that there are ninety kinds of birds, five of wild geese, four of ducks, and two of swans, besides the albatross, the penguin, the cormorant, the woodcock, the partridge, the pigeon, the snipe, and other species of smaller size. The fish-king, the parrot, and bee-martin also abound. The condor is sometimes seen, and there are two kinds of eagles, &c. There is not a great variety of insects. There are various mollusks, one species of which, called "danawa" by the natives is most delicious food, though one por- ... it is said to be extremely poisonous. There are no snakes or ... beasts of prey. The dogs of the ... very strong;

NATIVES OF TIERRA DEL FUEGO.

In regard to the natives of Tierra del Fuego, there have been so many contradictory statements made by various visitors to different parts of the country, that it is somewhat difficult to reconcile them. By some they are reported to be large, stalwart, and fine-looking men. By others they are said to be physically small and the most abject of human beings. Darwin, whose scientific investigations were confined principally to the southern portions of the country, states that "one can hardly believe them to be fellow-creatures and inhabitants of the same world," and he seems to have formed his idea of the "connecting link" from what he saw of them.* On the other hand, Señor Fredrico Mouglier, whose explorations were in the northern and northwestern parts of the island, informs us that "the Fuegians are powerful men of large stature and warlike instincts, living by the fruits of the chase, and having a kind of military organization under the command of one chief." Lieutenant Bové gives an equally favorable estimate of their appearance; while Captain Parker assures us that "they are beautiful specimens of the human race."

There seems to be no doubt that both of these contradictory stories are to some extent true, according to the part of the country which you may happen to visit. The fact is, the land is inhabited by two very distinct races of Indians; those who occupy the northern portions of the country being quite different in size, appearance, and manner of life from those who live along the channels and among the islands of the southern extremity. Mr. Brydges, who, from his long residence among these peoples, probably knows more about them than any other living man, not only assures us that there are two tribes, separate and distinct, but explains that the difference is the result of the great difference in their modes of life and the circumstances to which they respectively have had to adapt themselves, according to the localities in which they lived. Those who dwell in the north he calls Onas; those in the south, Yahgans; and he obtained these names from the tribes themselves.

THOSE WHO INHABIT THE NORTHERN PORTIONS, THE ONAS.

The Onas appear to be quite identical in customs, character, appearance, manner of living, and even in language, with the Tuehelche Indians of Patagonia. Like them they use bows and arrows in the chase after guanacos and for killing feathered game. They are very muscular people—large, active, and well formed. They speak of themselves as "footmen," to distinguish them from the Yahgans, who spend their time in canoes or in fishing. The number of the Onas is now quite reduced. Fitzroy estimated them to be about 600 souls. An epidemic of measles, a year or two ago, was very fatal, and the entire tribe does not now number more than 500 persons.

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*Mr. Popper says in the National Library at Paris there is preserved a curious publication, consisting of a map entitled "*Tabula geographica regni Chile.*" It was designed in the seventeenth century by the Jesuit fathers of that country and exhibits in different parts of Patagonia drawings of Indians, of guanacos, and of ostriches; whereas, over Tierra del F

They principally occupy the pampa region, from Anegada Point on the north to Thetis Bay and Admiralty Sound on the south. They are nomadic, and wander from one part of the country to another, according to the season or the exigencies of the chase. They carry their tents with them, as these merely consist of a few poles, generally covered with guanaco skins, or sometimes thatched with rushes. Abandoned encampments are to be seen all over the country, where hillsides or valleys afford protection from the winds. The men do the hunting, while the women do the heavy work and carry the burdens. Besides their bows, the strings of which are made from the sinews of the guanaco, the men are equipped with quivers made of skin, which are always filled with a full complement of heavy arrows, pointed with a sharp stone or piece of glass. Mr. Popper, whose recent explorations in Tierra del Fuego I have already referred to, has, in a lecture just delivered before the Argentine Geographical Society, given us so graphic a picture of the Onas Indians that I am induced to make a translation of it. He says:

The central portions of Tierra del Fuego are inhabited by a race of corpulent, strong, and muscular natives, whose height sometimes exceeds six feet. Their skin is of a clear, copper color, and is soft and oily to the touch. Their dark, lusterless, woolly hair falls in tufts around a large tonsure, cut close in the top of the head. The face is oval shaped, of an orthognate type, and exhibits a narrow forehead, adorned with frontal protuberances slightly accentuated. The forehead terminates in a pair of prominent and scarcely arched eyebrows, which give the eyes a deep and energetic expression. The cheek-bones are prominent; and the nose is convex and almost aquiline. The mouth is of medium size, with small teeth covered with a yellow enamel. There are a few hairs on the chin; and the ears, depressed and disjointed, complete a face which calls to mind the North American Indians rather than the Tuehelches on the other side of the straits. The head rests upon straight, strong, and broad shoulders, and a prominent, well-developed chest; whereas the breasts of the women are depressed, pendant, and flaccid, though I have seen some exceptions. The arms of the women are strong and round; those of the men are muscular. The bulky hands contain short fingers, which terminate in flat, square nails. The general gait of these Indians is heavy. The dimensions of the abdomen vary very much, according to the time at which he has taken his Fuegian meal. In the lower parts of the body nature has been less prodigal. The legs, although straight and strong, are not in proportion to the body; the calves are meager, terminating in ill-defined lines, and the feet are of moderate size. Notwithstanding the rough and severe climate which prevails, the inhabitants use no other clothing than a cloak or "poncho" of guanaco skins, and they generally live in tents, the sides of which are made of a couple of poles on the windy side, over which skins are stretched or grass is banked. The only decoration I observed on the women is a bracelet of perforated shells. It is quite impossible to distinguish the females from the males by their dress, though they exhibit but little modesty in exposing their persons. The Onas are extremely nimble. Being obliged to hunt the guanacos on foot, they acquire the habit of running with incredible swiftness. Through curiosity I measured the tracks left in the sand by an Indian who fled before us, and the length of each step was nearly two meters. The wounds which I have seen them inflict on themselves, and which perhaps are connected with some superstitious belief, denote strength of mind; and lead me to the conviction that these aborigines can, without much suffering, bear fatigue, cold, hunger, and every species of painful impression.

With regard to the intellectual faculties of the Onas, they cannot be much developed, if we may judge by the primitive implements they use in their every-day [illegible] Their tools, for the most part, consist of pieces of iron, taken from some vessels, tied to pieces of wood by leather thongs. For [illegible] guanaco; and the only [illegible] They

flexible whalebone, in the form of movable rings, which, being hidden in the grass, answer the same purpose as the well-known wooden trap for catching partridges and other game.

During the course of the expedition I tried to enter into friendly relations with the Onas whom I met, but, I am sorry to say, without any success. Instead of corresponding with our friendly relations and dispositions, they invariably showed an undisguised tendency to make war on us.

Other travelers confirm this warlike disposition of the Onas. On the approach of strangers to their shores they are inclined to be aggressive, and stories are told of their cruelty to sailors who have been shipwrecked on their coasts. The Argentine authorities and ships of war, owing to the want of welcome with which they have been received, have already had a number of rencounters with them, in some of which the Indians were shot down with Remingtons. I doubt not, however, these unfortunate affairs have been owing more to the timidity of the Argentines, who, in their awkward attempts to open communication with the natives, have precipitated hostilities in the apprehension that they were about to be attacked or led into ambush.

THE YAHGANS, OR SOUTHERN TRIBES.

The Yahgans, who inhabit the southern portions of Tierra del Fuego, are altogether a different people from the Onas. Perhaps with some reason they have been considered as "the most miserable specimens of humanity that can be found in the western hemisphere." Mr. Brydges, however, who has lived among them for nearly a quarter of a century, says they are not so degraded as they have been represented—not so black as they have been painted—and they are greatly improved in their condition since he went to live among them. The charge which has been made against them, that they are cannibals, he assures us is emphatically untrue. "Cannibalism is utterly impossible among them, for the reason," as he says, "that they look upon human life as sacred," and from this circumstance the friends of every person assassinated or killed believe that they are in honor bound to avenge his death. They do not eat meat which is not cooked. They do not marry with blood relatives, however remote. Some of the men have one wife; some have two or three; but they never marry first or second cousins, or near relatives, as something abominable. On the other hand they are very immoral and lax in their conduct and conversation, and their continual offenses against each other keep their communities in a chronic state of inquietude and violence. There are very few of them whose bodies do not present scars and wounds, and deaths frequently occur from their personal wrangles. They are quarrelsome and irritable, and in their dispositions they are both crafty and treacherous. Having no fixed principles they are governed entirely by their desires and passions. Tattooing is unknown, but the girls paint their faces for fashion and the men for mourning. They are fond of each others' company, and, sitting around the fires of their huts or wigwams, they are very jovial over their meals. When they have satisfied their hunger in the amplest manner—for they generally have an abundance of food—they indulge in the most animated conversation

and their numbers are now considerably reduced. They live usually in groups or villages of twenty or thirty families. They are not of a uniform type. While some are quite stalwart, others are exceedingly diminutive. Some have straight hair; others have it curled and crispy. Their principal food consists of mollusks, fish, sea-calves, birds, strawberries, &c. They manufacture fishing nets from tendons, with a mesh quite identical with those manufactured from hemp in the United States. They seem to understand the division of labor. The women cook, fish, and paddle the canoes, while the men hunt, make and repair the canoes, and collect fuel. The women are exceedingly expert with the canoes, and are much more fearless swimmers than the men. They paddle along the coasts for hundreds of miles in their canoes. The principle of women's rights is so far respected that the wife disposes, as she wishes, of whatever fish she may catch over and above what is required for her wigwam. They fully understand the art of cooking, though in rather a primitive way. On this subject Mr. Brydges says:

These Fuegians are well acquainted with the various uses of fire, and cook their fish, birds, meat, and eggs in different ways, but until I went to live among them they never boiled them in water, simply because they had no vessels in which they could do so. They toasted whale or seal blubber on pointed sticks stuck in the ground, and caught the oil in large mussel-shells placed underneath. As these filled they poured the oil into bladders and pipes for future use. Fish-fat they put into large shells and caused the oil to flow from it by placing heated shells upon it. When they wished to cook birds whole they placed them on the burned-out embers and filled them inside with heated stones. They baked their eggs by breaking a small hole in one end and placing them upright in the embers before the fire, turning them around from time to time to make them cook equally. They uniformly used the blood of animals, but always in a cooked state. I have never seen or heard of the Yahgans eating any kind of meat or fish raw, excepting certain kinds of limpets, which they much prefer in an unckooked state. Although until I came they had no vessels in which to heat water on the fire, I have heard occasionally of their having heated water by dropping heated stones in it as it stood in bark or wooden buckets. While they do not cook their vegetable food, they thaw and slightly warm, in winter, the frozen tree parasitic fungi before eating them.

THEIR WONDERFUL LANGUAGE.

Mr. Brydges gives many more interesting details than those which I have quoted or condensed above in reference to these people. But the most remarkable one is his statement that the language of the Yahgans is "soft, rich, and very full;" how rich and how full may be inferred from his almost incredible announcement that he has accumulated a dictionary or vocabulary of no less than thirty thousand words of the dialect spoken by the Indians in those distant regions. Lieutenant Bové, who probably got his information in regard to the language of the Yahgans from Mr. Brydges, makes a similar statement, and in his narrative adds that "the words are sweet, pleasant, and full of vowels." As they neither read nor wrote in their primitive condition, one might be disposed to ask what in the world is the [illegible] to them of so many words, since among such an uncivilized people [illegible] to be sufficient for the limited number [illegible] which they could

the dialect of these people with the same facility that he speaks the English language.

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light on many phases in the history of more highly civilized nations. Only let us remember that these races and their languages are as old as the most civilized races and their languages, while their history, if we may so call it, seldom carries us back beyond the mere surface of the day. If we in England are old, the Fuegians are not a day younger.

"But while scientific anthropologists have long given up the idea that if we want to know the condition of primitive man we must study it among the Fuegians, the subject has lost none of its charms. The first question which we have to ask when we have to speak of savages is whether there is any indication of their having once reached a higher stage from which they have descended. Most people would naturally think of Fuegians and Hottentots as retrogressive or decaying savages, because they are dying out wherever they are brought in contact with European civilization. But we must be careful before we deny the recuperative power even of retrogressive savages, and must look for some evidence beyond mere statistics.

"As I look upon language as a work of human art, I must confess that nothing has surprised me so much as the high art displayed in the languages of so-called savages. I know quite well that a great abundance of grammatical forms, such as we find in these savage dialects, is by no means a proof of high intellectual development. But if we consider how small is the number of words and ideas in the ordinary vocabulary of an English peasant, and if we find that one dialect of the Fuegians, the Yahgan, consists of about 30,000 words (as Giacomo Bové states in his Travels, 1881), we certainly hesitate before venturing to classify the possessors of so vast an inherited wealth as the descendants of poor savages, more savage than themselves. Such facts cannot be argued away or ignored in our estimate of the antecedents of the Fuegian race.

"I select the Fuegians as a crucial test simply because Darwin selected them as the strongest proof of his own theory, and placed them almost below the level reached by the most intelligent animals. When Darwin looked at the Fuegians he no doubt saw what he tells us, but then he saw it with Darwinian eyes; he says: 'Viewing such men one can hardly believe that they are fellow-creatures and inhabitants of the same world. Their language scarcely deserves to be called articulate—a mixture of hoarse, guttural, and clicking sounds.'

"With regard to their physical aspect Darwin must have been either very unlucky in the Fuegians whom he met, or he cannot have kept himself quite free from prejudice. Captain Parker Snow, in his Cruise of Tierra del Fuego (London, 1857), speaks of them as really beautiful representatives of the human race. Professor Virchow, when exhibiting a number of Fuegians at Berlin, strongly protested against considering them as an inferior race or a connecting link between ape and man. And as for Darwin's estimate of their language, I doubt whether, so far as sound is concerned, any one would consider Fuegian as inferior to English. Lieutenant Bové, speaking of the Yahgan dialect, says, 'the words are sweet, pleasant, and full of vowels,' but he admits that some of the other dialects are harsher.

"Even if their language was as guttural as some of the Swiss dialects, how shall we account for the wealth of their vocabulary? Every concept embodied in their language is the result of hard intellectual labor, and although excessive wealth may be an embarrassment, there remains enough to prove a past very different from the present. The workman must have been as great as his work; and if the ruins of Central America tell us of architects greater than any that country could produce at present, the magnificent ruins in the dialects of Fuegians or Mohawks tell us of mental builders whom no one could match at present.

"The Duke of Argyll, in examining the principal races commonly called savage, points out that degraded races generally inhabit extreme ends of the continents, or countries almost unfit for human habitation. He concludes that they did not go there of their own free will, but that they represent conquered races, exiles, or criminals. He considers that the Fuegians probably came from the north; that their ancestors may have participated in the early civilization of Chili, Peru, Brazil, or Mexico; and that the wretchedness of their present home fully accounts for their degradation.

THEIR PRESENT IMPROVED CONDITION.

During the many years, however, that Mr. Brydges has been among these Indians very great changes have taken place in their social and intellectual status. Mr. Darwin himself would scarcely recognize them as the same people. Those who have, during the last twenty-five years, come in contact with Mr. Brydges, and by him been brought into relations with the South American Missionary Society of London, are no longer "the abject specimens of humanity" that Darwin described. Mr. Brydges assures us that some of them are now quite civilized; that "they have learned to read and write, and above all fear God and keep His commandments." His place of residence is at Ushvia, on the north shore of Beagle Channel, where he has a wife and six children, and where his missionary labors for all these years have been active and continuous. He says of himself:*

I have never been alone among the natives, as there have always been associated with me one or more fellow-workers with their families. Our life among the Yahgans has been eminently practical, with the view of leading them to cultivate the soil, keep cattle, build permanent huts, and live in a more orderly and settled manner. I began to learn the native language in 1858, joined the mission service in 1861, and could converse freely with the Indians in 1863, when, in company with Bishop Sterling, I fixed my residence among them. The improvement which has taken place in their condition since is wonderful. They have now learned the arts of civilized life. They have acquired the skillful use of fire-arms and some of them are splendid sportsmen. They own guns and purchase ammunition. They are acquainted with the value and use of money, English or Argentine, a good sum of which is continually passing through their hands, as they prefer selling for money rather than bartering. They occasionally visit Sandy Point and the Falkland Islands, and are thus thrown in direct contact with a civilization which they are anxious to attain to. My object in coming to Buenos Ayres has been to obtain a grant of land in the Beagle Channel, on which to create a farm and employ native labor upon it, thus seeking to supply a want in reference to agricultural products, which we have long felt, and at the same time insure the well-being of some of the natives.

As may readily be supposed, the Argentine Congress, at its late session, was not long in deciding to donate to Mr. Brydges twenty-four square miles of land at Ushvia, fronting on Beagle Channel.

A very interesting fact, illustrating the labors of Mr. Brydges among the Yahgan Indians, is related by Mr. Lista. During his explorations he met a body of these natives on the eastern coast, and they addressed him in the English language!

TIERRA DEL FUEGO AS IT REALLY IS.

Such is Tierra del Fuego,† or at least that part of it which belongs to the Argentine Republic; not altogether the miserable "tail end of creation" which some explorers in their ignorance have painted it, but a country diversified and picturesque in the extreme, with a beautiful alternation of mountain, upland, and plain, with immense forests of several varieties of valuable timber, with wide pampas and [illegible] with a variety of succulent grasses suitable for both [illegible] number of small rivers and water-

courses running to the four points of the compass, with lakes and lagoons in different parts of the interior, with a large number of beautiful bays and harbors, with various kinds of wild animals valuable for their flesh and their furs, with an abundance of excellent game, with a climate somewhat rigorous in the winter, but healthful in the extreme and suitable for the cultivation of the cereals and nearly all varieties of vegetables; a country, indeed, which is capable of wonderful development and possessing quite all the elements necessary for sustaining a large population. There is no country which has been so persistently maligned and misrepresented, and simply because those who visited its coasts never penetrated into its interior, but drew their conclusions from what they saw, or imagined they saw, from their ships.

THE VEIL PARTIALLY LIFTED.

Fortunately, the explorations which have been made during the last year or two have quite lifted the veil from the fastnesses of the interior, and revealed—though only partially as yet—what has heretofore been so densely shrouded in mystery and gloom. Mr. Popper, who, as I have said, has just finished an exploration entirely across the country, from Useless Bay on the west to San Sebastian Bay on the Atlantic, in an interesting diary of his travels,* speaks of the future which is in store for the gold mines in the region of the Sierra Balmiceda, and of the "beautiful plains" and "good pasture lands" which he found on the Argentine side of the island. While on the Cullen River he found himself in the midst of "an elevated plain covered with grass, well fitted for sheep, with not a single bush to be seen on the horizon." Of the forests in the mountain region, he says:

> At every step the vegetation became more and more rank and luxuriant, increasing in height and density until we were obliged to come to a standstill. Before us was the forest like a solid wall. Without any kind of outlet or opening it surrounded us on all sides, so that at certain times we could neither advance nor go back. It was a gloomy forest. The ground was covered with the rooted up and fallen trunks of trees, and masses of humid and decomposing vegetable matter.

On reaching the heights of Sierra Balmiceda through a series of almost insurmountable obstacles, he says:

> The splendid panorama spread out before us, and of which these heights commanded a view, fully recompensed us for our labor. Towards the west, opening like a geographical map, appeared Cape Monmouth, with its lagunas forming icicles of most fantastic shapes, and the Straits of Magellan, whose vaporous atmosphere scarcely allowed a glimpse of the continental coast; to the southwest was the island of Dawson with its dense evergreen forests; towards the south was the White Mountain range, overlooking the Beagle Channel; and far away, breaking off in the horizon, were the mountains of Sarmiento and Darwin, which, like gigantic sentinels of the Atlantic, raise their heads, covered with eternal snows, far beyond the region of tempests.

Of the wild game of the country he speaks in most rapturous terms. I again quote from his diary:

> We are on the banks of the river Beta. We remark a fire made by the Indians two leagues to the westward. The valley crossed by the stream produces some bramble bushes of the *Berberis oxifolia*, and offers excellent pastur[illegible]

searching for worms in the grass; there go a pair of ducks (*Anas cristata*) gliding along the limpid surface of the stream and followed by a new generation of their own species. On all sides there are flocks of birds of all sizes and colors. On descending the valley we remark great animation among its inhabitants. A multitude of ducks and other birds arise with a sharp scream and incessant flapping of the wings. They fly in circles over our heads, and sometimes they come so near us that they touch our caps with the tips of their wings. In the mean time we are occupied in catching young pigeons as they try to hide themselves in the burrows. We pick up eighteen pigeons, while *la canardière* secures three geese and eight ducks, &c.

MR. LISTA'S ESTIMATE.

Mr. Ramon Lista is even more emphatic in his estimate of the Argentine portion of Tierra del Fuego. From his report to the Government, now just published,* I translate as follows:

I have traveled from one extremity of the country to the other, and I am scarcely able to give entire credit to all that my astonished eyes have seen. I expected to find a cold and chaotic island, a barren rock, "the ruin of a former world," as Captain Wallis has called it. Instead of this, I have bivouacked continuously on a flowery plain of grasses capable of sustaining thousands of cattle and sheep. I have discovered leagues upon leagues of rich valleys, accessible mountains almost without snow, and magnificent forests where fern trees and other plants are found which in Buenos Ayres are not able to live, except under the shelter of a greenhouse.

I have traveled much; I have seen the forests and cataracts of the northern Missiones; I have crossed the pampas from Carhué to Choyque-Mahuida, and I have explored almost all of Patagonia; but nowhere have I experienced such profound emotions from the contemplation of natural scenery as in Tierra del Fuego. The sublime landscapes—almost tropical—of its evergreen forests, the mildness of its climate, and the rich pasturage of its virgin prairies completely refute the stories which in all ages and among all peoples have been circulated by its calumniators. As all the great navigators who have explored its coasts—Magellan, Sarmiento, Cook, Byron, King, Fitzroy, and others, ancient and modern—have painted Tierra del Fuego in the most somber colors, perhaps my words may seem bold and insolent, or the offspring of a prejudiced enthusiasm; but then the interior of the island, which I have had the fortune to explore, was entirely veiled to all those illustrious navigators.

The appearance of this *terra incognita* is most beautiful; something like that of Norway, and not a little like that of Switzerland; and if it is not an Eden or an Eldorado, it is none the less rich and fertile. In its grassy valleys and in its dense and wide-extended thickets of juicy shrubs and plants we can see a revelation of its future pastoral riches. Its marine climate is tempered by the winds which blow from the north during the winter; and when up the tortuous valleys of verdant grasses the traveler reaches the boundary of the great forests, he cannot fail to enter his protest against the calumnious epithets which during all these years have been directed against a country in whose solitudes live thousands of human beings, fed and clothed entirely by the prodigality of nature.

I could translate from Mr. Lista's report many more pages in the same strain of appreciation of the Argentine portion of Tierra del Fuego, but this is sufficient to convince any one that in spite of the maledictions which have from time immemorial been persistently heaped upon the country, there are large portions of it on the Atlantic side which must ultimately attract the attention of the civilized world, not merely for the mineral wealth which it contains, but likefor the pastoral industry which it could support.

The only existing settlement anywhere in the vicinity of Tierra del Fuego is on the northern side of the Straits of Magellan, at Sandy Point (Punta Arenas), whose geographical position is important, whose climate is genial, and whose commerce and industries, already considerable, have great future promise. The place was founded in 1843 by the Chilian Government as a convict colony or penal station. It is in charge of a governor and other proper officials, who hold their appointment from the Chilian Government. A few years ago the convicts overpowered their guards and escaped, destroying a large part of the town. They then made their way through Patagonia to Chupat, on the Atlantic coast, where they were captured, brought to Buenos Ayres, and afterwards returned to Chili. Since then, I believe, that Government no longer uses the place as a station for its convicts. To-day the town numbers about 2,000 inhabitants, belonging to all nationalities. It forms a central point for furnishing supplies for the vessels which annually sail on the southern coasts of Tierra del Fuego in search of seals and guano, as also for the gold miners who are at work on either side of the straits. It likewise furnishes a market as well as nucleus for the pastoral interests, which now have attained to considerable proportions along the northern shores of the Straits of Magellan. It is estimated that there are already two hundred thousand sheep between the Gallegos River and Sandy Point, the pasturage being of a very good quality. Two lines of steamers, one the German Lloyds and the other the Liverpool and Pacific line, now make regular semi-monthly trips through the straits, touching at Sandy Point on their passage each way. It is also becoming quite a coaling station for war and other steamers, coal of a very fine quality having been found in the vicinity. This coal is also, to some extent, now sold in Buenos Ayres. Cargoes of beech timber are also finding their way to this market. The port has a fine anchorage and a convenient mole for the shipping. The mixed population, in its love of conviviality and amusements, in its propensity to gamble, and in its carelessness of the future, quite reminds one of the very early days of our own San Francisco.

USHVIA, THE CAPITAL OF TIERRA DEL FUEGO.

In Tierra del Fuego the only point which can be called a settlement is Ushvia, the site of the missionary station of the Rev. Mr. Brydges. It consists now of several families, teachers, &c., connected with the mission. For that purpose several houses have already been erected, and several more are in process of construction. The embryo town is on a beautiful bay, looking off towards the somber forests of Novarino. In the rear it is protected by forests which line the mountain sides. The shores are gently sloping and covered with a rich carpet of grass. At different points beautiful streams pour down the slopes, sometimes forming cascades and sometimes leaping over high precipices. In this charming location the English mission has, for the last twenty-five years, been furnishing food and clothing and religious instruction to hundreds and hundreds of native Indians. Already a large clearing has been made in the f[illegible]

1881, and including States Island," and the capital of the territory has been fixed at Ushvia, but occupying the opposite side of the bay. Several buildings for the use of the governor and his officers have already been erected, as also barracks for the quarters of a military guard. One or two Argentine men-of-war are nearly always at anchor in the bay.*

OTHER SETTLEMENTS, ETC.

Besides this there are a few settlements in Future and Useless Bays, the quarters of the gold miners who are working there, and on the river Santa Maria and other streams which come down from the mountains.

Some years ago, Mr. Steubenrauch, the British consul at Sandy Point, attracted by the beautiful plains of Gente Grande Bay, resolved to establish a sheep farm there; and he has not only built some houses, but has reclaimed a large *estancia* with wire fences, and stocked it with sheep brought from the Falkland Islands, placing a missionary from those islands in charge of the place. At last accounts it was progressing favorably.

A number of miners have been arranging to go to San Sebastian Bay in the prospect of being able to find gold in paying quantities near that point.

On States Island there are a number of perfectly sheltered bays, and there is now the nucleus of a settlement there, a light having been erected fronting on the Straits of Lemaire.

ARGENTINE MOVEMENTS TO DEVELOP THE COUNTRY.

In concluding this report it is gratifying to be able to state that there is a prospect of a brighter future in store for Tierra del Fuego. The narratives of Mr. Lista and Mr. Popper, and the statements of Mr. Brydges, have brought that country to the front in so favorable a light that the Argentine Government is determined to make a movement at once for its colonization and development. To this end Governor Paz, the recently appointed governor of Tierra del Fuego, is now in this city arranging for a thorough exploration of the most available points for settlement, and will direct his attention not merely to an investigation of the mineral resources of the country, but to an examination of the pasture lands with a view to opening cattle and sheep *estancias* there. A full corps of competent men will accompany him and assist him in his labors. The Argentine national steamer Magellanes, loaded with supplies and the necessary outfit, will sail in a few days from this port with the expedition on board, and the work is expected to commence so soon as the spring opens. I have every reason to believe that it will be the date of a new departure for that hitherto unknown and much misrepresented portion of South America.

E. L. BAKER,
Consul.

[*Appendix to Consul Baker's report.*]

CHILIAN TIERRA DEL FUEGO.

BUENOS AYRES, *May* 28, 1887.

DEAR SIR: Learning that you have just returned from an extended mining survey of the western or Chilian portion of Tierra del Fuego and the adjacent islands, I should be pleased, if convenient, to have you give me a description of the natural characteristics of that locality, with its resources and possible development.

Very truly,

E. L. BAKER, *Consul.*

Mr. JULIUS SCHELTZE,
Mining Engineer.

THE MINING COUNTRY OF THE FUTURE.

BUENOS AYRES, *June* 6, 1887.

DEAR SIR: In reply to your note of inquiry, I have to inform you that in my opinion the lands which lie along the western portion of the Straits of Magellan, with the adjacent islands, constitute the great mining country of the future.

APPEARANCE OF THE COUNTRY.

In regard to the characteristics of that portion of South America, I may premise by saying that they are exceedingly different from those which pertain to the eastern extremity of Patagonia. The Chilian settlement of Punta Arenas is situated on the Straits of Magellan, about midway between the Atlantic and Pacific Oceans. While the country to the east of this center of civilization (though an exceedingly rough one) of the far south of the continent consists of the open, treeless pampa, with scarcely 900 feet elevation, the aspect of both sides of the straits, west and southward of this turning point, changes suddenly into a very mountainous country, with a great abundance of extremely luxuriant forests. There is, in fact, so far as I could see or learn, but one little plain that might serve for pastoral purposes, and that is the northern part of the island of Dawson, between the peninsula of Brunswick and the island of Fireland (Tierra del Fuego); while the southern portion of the island of Dawson at once becomes very mountainous and in the sheltered places is covered with forests, like the surrounding islands and continent.

MOUNT SARMIENTO.

Mount Sarmiento, in a straight line, is 80 miles south from Punta Arenas. It stands on the western peninsula of Fireland, and forms the great culminating point of this frequently interrupted mountain chain of the Cordilleras. The two white poodle peaks of its summit have an elevation of about 7,000 feet, and in clear weather can be seen at a distance of 100 miles. They rise high and lofty above the surrounding heights, which generally do not exceed 4,000 feet, while the western slope of this huge mountain center slides gradually but directly into the dark blue waters of the channel which separates Fireland from the other islands.

THE ISLANDS AND CHANNELS.

These islands are innumerable and of all conceivable shapes and sizes. All of them are of an extremely mountainous and rocky character, mostly of slate, diorite, and quartz. They are separated from each other by very deep channels which are connecte with the Pacific Ocean. These channels have innumerable inlets which penetrate into the interior of the islands, thus forming an immense number of far-reaching fiords, where the shores rise abruptly out of the water, very often form-

THE IMMENSE FORESTS.

Where the condition of the ground allows it, that is, where the soil is not too rocky, there is a most luxuriant growth of moss-covered trees, and higher up of shrubs. The wildest imagination can scarcely conceive of its denseness. Especially in the lower places and valleys, where the débris of the mountains, by the action of snow, rain, and atmosphere, is transformed into an apparently very fertile soil, the forests are impenetrable and exceed anything I have yet seen. Even the jungles of India and the virgin forests of Guiana and the United States of Colombia do not compare with the marvelous growth of the woods in this cold climate. Higher up on the mountains the trees, instead of growing straight up, crawl on the ground, so that a tree of the thickness of a man's body is not more than three feet high, but spreads out and covers with its branches a large tract of ground. I think this is especially due to the enormous weight of the snow, which accumulates on the tops of the trees during the greater part of the year and presses them down, but at the same time giving them warmth enough not to impede their growing. There is always, of course, the greatest abundance of water pouring down the sides of these island mountains, and many magnificent cascades are everywhere to be seen. In some parts the mountains recede a little and give space to rivers and their valleys, which generally extend a good distance into the interior. Many of these rivers contain water enough for small boats, thus allowing the exploration of the interior in that manner. Indian canoes are frequently seen upon them, during their deer hunts, and they very daringly cross from one island to another in these frail boats.

BIRDS AND ANIMALS.

I found the same specimens of birds and animals that are to be seen on the eastern side of the Cordilleras, with the exception of the guanaco, which I missed entirely. The waters of the channels are alive with fish, from the largest whale to the smallest specimens of the tribe; and the shores are very well populated with oysters and other mollusks. There is a curious circumstance I found out in regard to the oyster. When I found them on the sandy places there was nothing extraordinary about them; but I discovered a great bed of them on the diorite rocks with quartz veins of iron and copper, and in every instance, without exception, the shells contained great quantities of small pearls, becoming larger where the water was deeper. It is not improbable, therefore, that large-sized pearls might thus be found at a reasonable depth.

THE NATIVE INDIANS.

This country is inhabited by Indians of a low grade. They wander in their canoes from shore to shore, living upon oysters and other shell-fish, or hunting deer with their numerous dogs high up the streams in the interior. They are naturally very harmless and inoffensive; but the seal hunters from Punta Arenas, the most heterogeneous and roughest lot of people to be found anywhere, in their frequent visits to these places, have so abused and maltreated the natives, killing the men and outraging the women, that the Indians not unfrequently make reprisals upon them. By these means the Indians have gotten the name of being treacherous. I can only say that they never annoyed me during my stay, though they must have been perfectly well aware of our presence and small number. We were only five in all, and only one or two of us could guard the camp, while the others were prospecting far away and only returning at nightfall. We often heard their hunting dogs barking close to us, and they answered our "smoke signs" on the other side of the channel, but they never tried to take advantage of their numbers, and left us in peace.

The natives are almost nude, their only garment being a skin about a foot and a half square, on the shoulders. Otherwise they have no cover at all for their bodies. When on shore they live in egg-shaped huts, made out of the branches of trees, with an opening on each side, which they close up with old skins. Their boats are made out of large oak trees, which abound in this country, the pieces being put together in some primitive manner. Wherever they go in these boats, they carry their fire with their old skins to be at
their huts built everywhere along the whole coast, and

stopped by the mountains, and then fall in torrents. Thus the streams frequently swell with great rapidity; so that it is not without danger to follow up the course of a river without a boat. This rapid filling of the rivers and rivulets with such a tremendous force of water will be one of the hindrances to surface-gold washing in this country, although I am sure there will be some pretty rich placers found yet.

THE VAST MINERAL RESOURCES.

I found gold in limited quantities in almost every creek and river in which I prospected; and with better weather conditions it might be made to pay to work them; but, as I have already said, the great future of this country will be found in the numerous mineral veins and coal deposits which exist on this side of the Cordilleras. Until I made my last expedition nobody had ever taken the trouble to ascend the hills or the streams, except for the purpose of looking for gold washings. But my last prospectings around Cape Forward gave unmistakable evidences of the greatest abundance of minerals—especially silver, copper, lead, antimony, and bismuth. The existence of coal was proved long ago, but thus far the coal is pretty much from the surface, and is too young to be of first quality. There certainly is better coal, but those who are at present engaged in this business are too inexperienced to know where and how to reach it. The proximity of water everywhere will, in the future, be a great help for mining purposes, by giving access to all places and reducing the cost of freight on the ores, machinery, and supplies to a very low figure compared with such expenses in other mining countries. Besides this, the great abundance of good timber close at hand, and the valuable water-powers which can be easily utilized everywhere around these places, are matters of weighty consideration and of high importance for the mining industry.

RICH SILVER AND COPPER VEINS.

The recent discovery of gold diggings on the Atlantic side of the straits for a time gave some impulse to the laziness of the people of Punta Arenas, and made them at least turn their eyes to their own ground. They started several expeditions on horseback and by sea into the Cordilleras; but they made the mistake only to look for gold diggings. Not one of the men was an experienced miner; and they therefore went unprovided with the necessary tools for the prospecting of veins. But even thus, a good many (apparently worthless) stones were brought back by them. Upon inspection, however, I have found them to be rich in silver and copper. Indeed, they are very much like the specimens which I have found in two different veins and which contain both those minerals in paying quantities. I am perfectly sure, from some of the samples I saw in Punta Arenas, that the veins from which they come will stand comparison with some of the best silver and copper veins in Northern Chili. But the people of Punta Arenas are not experienced in this kind of work yet; and it may be some time before they realize the fact that they live in a country which is equal, if not superior, in mineral richness to any mining district that I know of; and I repeat what I said in the beginning, that the lands which lie along the western portion of the Straits of Magellan is the mining country of the future.

Yours, truly

JULIUS SCHELTZE.

E. L. BAKER, Esq.,
United States Consul.

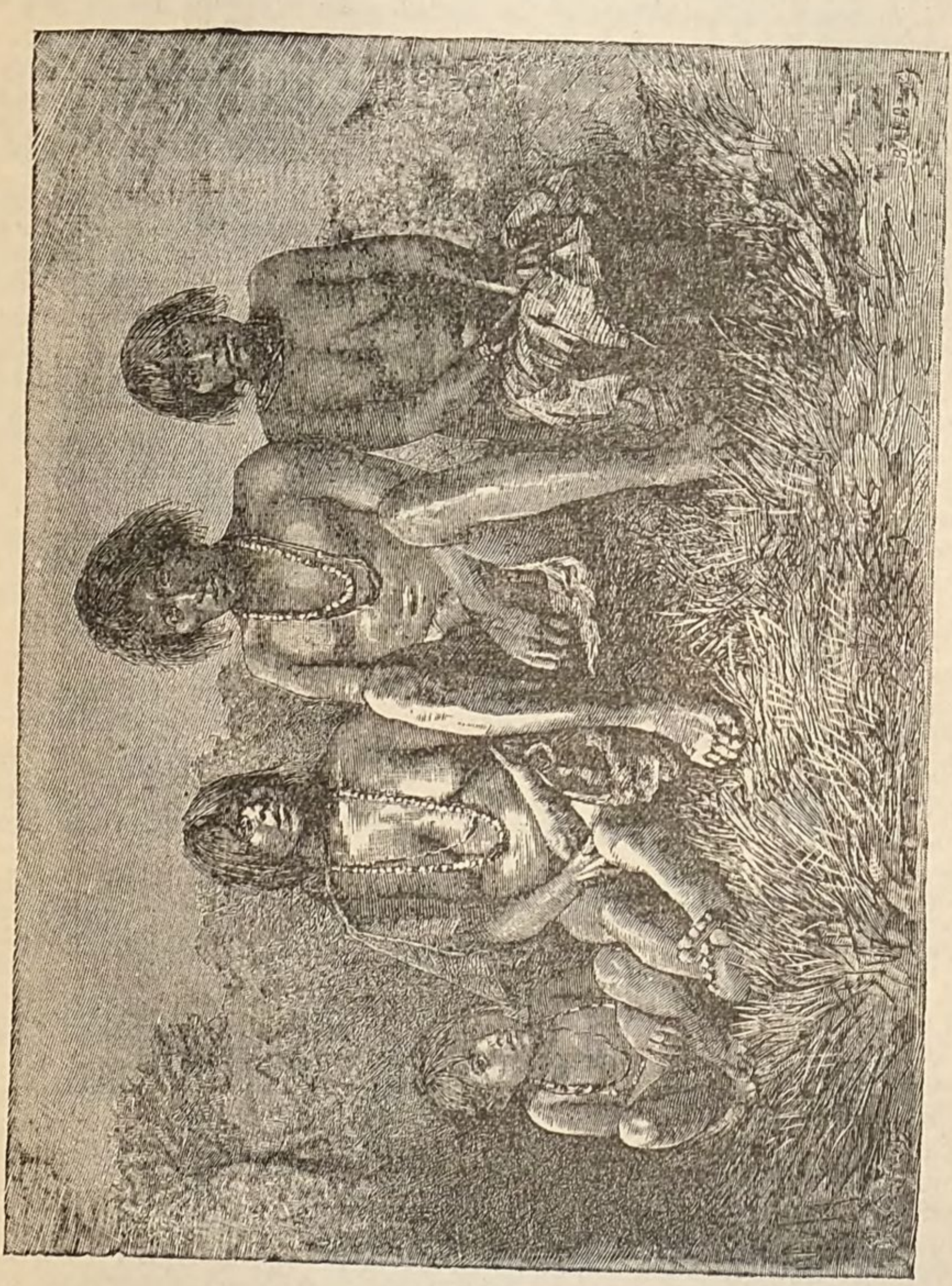
Since closing this report in reference to Tierra del Fuego, I have received from the maritime prefect or captain of the port of Buenos Ayres the following very important official intelligence in regard to that land, and which should be generally understood by those navigating in those waters:

[Translation.]

NOTICE TO NAVIGATORS.*

MARITIME PREFECTURE,
Buenos Ayres.

YAHGAN INDIANS—CAPE SAN DIEGO.



FAMILY OF ONAS INDIANS.

Near to this subprefecture, about eighteen years ago, an English mission was established among the tribe of Fuegean Indians called Yahgans. These Indians are now almost all of them civilized; their character is of the very best, and to some extent they speak the English language.

Navigators, therefore, need have no fear of these people. They can safely make signals to them, or approach them and disembark on the coast, perfectly sure of being well received by the Indians, and even assisted and humanely treated, whether it be in dividing their provisions with them or in showing them the best and surest route for finding the subprefecture, or the English mission, distant from it only a few hundred yards.

These Indians are the best assistants that the subprefecture possesses.

Many ship wrecked sailors of England and other nationalities have been saved, sheltered, and assisted by the Argentine subprefectures, established on States Island and in Tierra del Fuego (Beagle Channel). Very soon the last-named station will be transferred to the Bay of Good Success, where its services will be able to be more prompt and more efficient.

On States Island there is a light-house, situated in latitude 54° 43′ 24″ south, and in longitude 63° 47′ 1″ west from Greenwich, lighting a sector of 94°, which is comprehended between Cape Fourman (which bears north 53°, west from the light) and the sharp-pointed hill on Cape St. John (which bears north 41°, east from the light), and which is visible for a distance of fourteen or fifteen miles.

This maritime prefecture, under authority from the National Government, has deemed it proper and necessary to make this publication, in view of the fact that some shipwrecked captains, rescued by the authorities there, have declared that they were deterred from approaching the shore through fear of the Indians who live there.

Navigators may, therefore, dismiss all fear, and approach and land on those Argentine coasts, where they will always find gracious hospitality.

CARLOS A. MANSILLA,
Maritime Prefect.

BUENOS AYRES, *April*, 1887.

MEXICAN TOBACCO.

REPORT OF CONSUL MACKEY.

The tobacco of Mexico is of such excellent quality that it is said by many to equal that of Cuba, and there is no doubt among those acquainted with Mexican tobacco that such a comparison is admissible.

The best cigars of Vera Cruz and Tabasco are not excelled by the best of Havana in form and flavor. Perhaps, however, the superiority of the leaf from the celebrated "Vuelta Abajo" is most apparent in that exquisite aroma which the tobacco of no other country possesses, and which, to the senses of the smoker, is the most delightful and ravishing of perfumes. On the other hand, the Mexican cigars burn much more freely than those of Cuba, which must be constantly in the mouth of the smoker or they become extinguished.

The manufacture of tobacco in Mexico into cigars and cigarettes of a fine quality is of comparatively recent origin, dating from the Cuban insurrection of 1868, when a number of refugees from that island landed in Vera Cruz and there established factories for the manu- [illegible] cigarettes of the tobacco of the country. Since [illegible] parts of the Republic

In San Andres Tuxtla there are ten factories of the first order, three in Jalapa, and many in Orizaba, Puebla, San Luis Potosi, the city of Mexico, and elsewhere. The factories produce cigars of all qualities, ranging in price from $20 to $200 per thousand. Cigars are manufactured of every size and every shade, and great ingenuity and taste are displayed in devices of shape and ornament to attract the eye of the smoker.

In the cultivation of tobacco increased care and intelligence bestowed on each succeeding crop are augmenting greatly the production and improving the quality of the leaf, while better methods of packing, selection, and distribution in classes are observed in its preparation for market.

A disregard for these last particulars has diminished the acceptability of Mexican tobacco abroad, as much tobacco was formerly exported from Vera Cruz in the condition in which it would arrive from different places of the interior, the good and bad packed together indiscriminately without regard to quality. This was especially the case with commercial houses making shipments of tobacco for the purpose of placing funds in Europe to greater advantage, and to avoid the heavy loss by exchange. The houses of Vera Cruz which are regular exporters of tobacco now use all due care in its selection and preparation for exportation, with the result of increased estimation for the tobacco of Mexico in the markets of London, Hamburg, and New York. Much Mexican tobacco shipped to these places is manufactured and sold as that of Havana.

The Valle National, situated between the States of Vera Cruz and Oaxaca, produces tobacco of the finest quality and is entirely devoted to that purpose. The tobacco of San Andres Tuxtla, Acacuyan, Jathpam, and other portions of the same region is of excellent quality. Tlapacoyam produces large quantities of tobacco of a class inferior to that grown on the Gulf coast, though the wrappers of Tlapacoyam are much esteemed for their smoothness and fineness of texture. The cigars of Tabasco are highly appreciated by smokers. Tobacco of an inferior quality is raised in Orizaba, Chiapas, Cordova, and Oaxaca.

The price of tobacco in the leaf for wrappers and filling varies in different localities, ranging for filling from four to fifteen dollars, and for wrappers from ten to thirty dollars the arroba of twenty-five pounds.

MODE OF CULTIVATION.

Tobacco flourishes best in hot climates, though it grows and prospers also in the temperate zones. It may also be produced on all soils except those of an extremely saline or clayey character.

The lands especially adapted to the cultivation of tobacco, the best "vegas," as they are termed, are low, situated in valleys or on the banks of rivers, and of easy irrigation.

Frequent rains and a humid atmosphere are valuable agents in producing abundant and good crops.

The following, from the best sources of information, is the most approved method of cultivating this comfort-giving herb.

removed. Then the trenches are opened and cleared, that the water used in irrigation may circulate freely.

The soil having been moistened, a clear day is chosen for sowing, which is made broadcast, care being taken to scatter the seed evenly and equally. In some localities the seed are mixed with fine sand or ashes, which are said to protect them from the attacks of certain insects and to promote their development. The weather being propitious, the shoots appear in from eight to ten days.

Those spots where the seed have not produced are now resown. Care must be used to prevent the invasion of weeds and other extraneous vegetation.

Where rain is scarce it is necessary to water the plants, which should be done early in the morning, or in the evening. The shoots are ready for transplanting when they have attained the size of the ordinary lettuce. In their removal attention is given that the earth adhering to the roots of plants should not fall upon the leaves of others, as this produces a disease called the "pulguilla" (little flea), staining the leaves and destroying the active principle of the tobacco in those places where it is deposited.

Transplanting.—The season for transplanting, like that for sowing, varies, according to the climates of the respective localities, it being sought always to gather the crop before the arrival of the frosts.

The ground is subjected to several plowings, at intervals of from ten to twelve days, and the ditches are opened, by which the fields are irrigated.

That the excessive humidity of the soil may not injure the plants, they are set either on the ridge or in the side and not in the middle of the furrow.

A hole is made for the reception of the plants by means of an iron instrument, and in each receptacle is placed a plant, or two if they happen to be feeble. If the heat of the day is not excessive, those who set out the shoots follow immediately the laborers who open the ground with their iron planters. For this reason cloudy days are preferred for transplanting.

In setting out the shoots the earth is pressed carefully around the roots and leveled so as to leave no inequality where water may settle.

About twenty days after the transfer of the plants the fields are weeded, and plants which have withered or died are replaced by others of the proper growth.

When the plants have attained the height of from 14 to 16 inches the lower leaves are removed and fresh earth is packed about the base of the stalk.

The next operation in the cultivation of tobacco is the "capazon," or pruning of the plants, which consists in cutting away the tops to prevent florescence. This is said to be an operation of such delicacy that upon the skill with which it is performed often depends the good or bad result of the crop.

According to the authorities in tobacco culture, the "capazon" is [illegible] of the plant, so that in cutting up- [illegible] removing

They are now gathered. This is done on clear days and after several hours of the sun.

After the first leaves are harvested the plants are cut 6 or 8 inches from the ground, the earth is again loosened about the roots and watered anew. Thus a second and often a third harvest is obtained.

Tobacco is subject to the attacks of a species of caterpillar which makes its inroads upon the leaves and roots of the plants, injuring or entirely destroying them.

On the first appearance of these insects laborers are set to work at their extermination, and to remove the leaves which have been mutilated. Constant humidity of the soil causes the plants to languish and imparts to the leaves an unhealthy color, and if the humidity is excessive, the roots decay and the plant succumbs. Excessive heat and prolonged droughts also cause the plants to perish.

Curing.—The leaves are subjected to several processes before being sent to the factories for elaboration. After being spread in the sun for some time they are strung together and suspended in a house constructed for the purpose. In order that the fermentation should not be too rapid the leaves are not allowed to touch each other. After three or four days the leaves are separated and allowed to dry slowly, it being desired that the color of the veins or stems should be the same as that of other portions of the leaf.

In the process of curing, the leaves perspire, and it is necessary that the curing places should be well ventilated, and that excessive heat should not produce so great fermentation as to be injurious. The curing completed, the leaves are separated and distributed in classes, according to the custom of the locality. They are then packed for market.

If after packing the slightest fermentation is noticed, the bales are reopened and exposed to the air till all fermentation disappears.

When the leaves are too moist they are exposed to the danger of rotting in the bundles; if too dry they want flexibility and break in the process of manufacture.

BECKFORD MACKEY,
Consul.

UNITED STATES CONSULATE,
Nuevo Laredo, June 27, 1887.

TARIFF POLICY OF AUSTRIA.

REPORT OF CONSUL-GENERAL JUSSEN.

DUTY ON PETROLEUM.

The long-pending question of the tariff on petroleum is at last definitely settled. The committees of conference of both the Austrian and Hungarian Diets have accepted the amendment known as the Gaehowlsky amendment, by which heavy crude petroleum pays a duty of 2 florins in gold and light crude 2.40 florins in gold per 100 kilo-

The duty on refined petroleum remains the same as under the old tariff, viz, 10 florins per 100 kilograms.

All efforts on the part of Austria to gain the consent of the Hungarian Government to impose a duty in proportion to the degree of refinement, so that the artificial Russian oil could no longer be imported under the denomination of "crude," have been in vain. Hungary was not disposed to sacrifice entirely the great advantage it had gained in favor of its Fiume refineries, to the particulars of which I have frequently called attention in my previous dispatches. The compromise made is but a slight concession on the part of Hungary, and will fail to meet the just demands of the American producer as well as of the petroleum industries of Galicia.

This new tariff is to go into operation on the 1st of June next, and the bill as passed embraces all articles enumerated in the tariff heretofore reported by me (see Consular Reports, dispatch No. 113, May 7, 1886) with the exception of the single article of sugar, as to which no final decision has been reached.

I am credibly informed that in spite of the remaining discrepancy in the petroleum tariff in favor of Russian artificial oil, the Austrian syndicate, organized some time since for the purpose of building and carrying on petroleum refineries upon Austrian soil at Trieste, will import American crude oil, and that this syndicate has obtained such important and exceptional privileges from the Austrian Government that there can be no doubt of its successful competition with the Fiume refineries. These privileges are said to consist in a rebate of taxes, donations of real estate, and a reduction of freights on Austrian railroads. It seems quite plausible that these advantages should be granted when the fact is taken into consideration that all petroleum refined at Trieste would, under the existing treaty between Austria and Hungary, pay a consumption tax to Austria of $6\frac{1}{2}$ florins per 100 kilograms; while the consumption tax levied on the product of the Fiume refineries flows into the coffers of Hungary. The gain to the Austrian treasury if all petroleum consumed within its borders were manufactured at Trieste, upon Austrian soil, would amount to several millions of florins. Austria, having failed to persuade Hungary into an abandonment of its very peculiar view with reference to the importation of artificial Russian crude oil, will certainly be justified in taking the only step by which it can avoid the great loss of revenue consequent upon Hungary's action, and in making an effort at least to refine its own petroleum, instead of patronizing the Hungarian refineries.

I am inclined to believe, therefore, that the syndicate in question will be enabled to carry out its programme successfully, and that as a natural consequence the import of American crude oil to Austria will be increased, though the refined American oil will suffer under the prohibitive tariff of 10 florins, as heretofore. The fact that the refined product of American oil will be of a much better quality than Russian oil is one of the main arguments in favor of this [illegible] can be furnished at the same [illegible] that the

petroleum a state monopoly, to be carried on and administered in the same manner as the now-existing tobacco and cigar monopoly. It was argued that in this manner very large and very desirable sources of revenue would accrue to the Empire; but the Austrian minister of finance, although he did not deny the fact that the increase of revenue would be very welcome to the state, advised against the proposition, because he considered it dangerous to enrich the state at the cost of private enterprise. He maintained that the encouragement of private industries was, under present circumstances, more imperatively demanded than an improvement of the financial condition of the state; that the individual manufacturer and business man was to-day in a much more needy condition than the Empire, inasmuch as the latter enjoyed under the modern credit system still an almost inexhaustible source of auxiliary remedies. The opinion of the minister of finance prevailed, as other prominent members of the house of peers supported him, and expressed the view that instead of creating new state monopolies, it would seem to be just now the imperative duty of the Government to further the development of home industries, now so sadly depressed, and to increase the exports of the country, which were constantly being forced into narrower limits.

THE EFFECT OF A PROTECTIVE TARIFF UPON AUSTRIAN INDUSTRIES.

The reasons which were given for this state of things in the report of this high commission are very interesting, and quite remarkable, considering the source from whence they came. As the cause for this depression of trade and industry in Austria, the house of peers feels called upon to mention (1) the armed peace of Europe; (2) the industrial competition; and (3) the tariff war between the nations of Europe, a burden which, as these gentlemen admit, the nations of Europe cannot possibly carry much longer. And what is more remarkable still is that not only the Liberal press but the semi-official and highly conservative organs coincide in this view, and proceed to show that the protective tariff was principally instrumental in bringing about the present condition of things. As a matter of course these journals claim that a highly protective tariff was at first, when the expenditures of the state began to increase, necessary in order to enable the people to carry the burden of internal taxation, but they admit that this tariff system led to the tariff wars under which Europe is laboring at present, and that as an inevitable consequence the industries of Austria find themselves suddenly cut off from foreign markets and confined to the demands of home consumption, and that home consumption decreases constantly, being affected by the same causes which curtailed the export trade, and that at last the industries of the Empire stand face to face with a commercial crisis.

For this dilemma, so freely admitted, the remedies of a universal tariff reduction and international tariff conventions are proposed, but together with this proposal the admission goes hand in hand that a concert of action of the nations of Europe in this direction is, under present circumstances, out of the question. And, finally, after all

owing, principally, to the growing demand for glassware and pearl buttons, both articles being specialties of Austrian and Bohemian manufacture.

The Austrian exports to Italy, Russia, and the Levant have decreased to an alarming extent, and at a greater and more rapid rate than the exports of Germany to the same countries. Austrian manufacturers have diligently sought for the causes of this difference between the German and Austrian exports, and believe they have found them in the low freights granted by German railroads to the German exporters. They find on examination that, for instance, freights from Cologne to Moscow or from Cologne to Rome are actually lower than from Vienna. At a recent meeting of the Manufacturers' Society of Lower Austria these facts were discussed, and a memorial to the minister of commerce was submitted and unanimously passed, in which that high functionary is requested to exert his official influence in order to place the freights upon Austrian state railroads upon the same basis as those of the German roads. The memorialists could, however, not refrain from expressing the apprehension that probably, in view of existing emergencies and of the undeniable fact that the state had need of all its present revenues and resources, it would be quite questionable whether this petition would be favorably considered.

How well this apprehension is founded is clearly proven by the figures of the

BUDGET FOR THE YEAR 1887.

The report of the budget commission for this year contains the following figures of the estimated resources and expenditures of the monarchy: Total expenditures, 535,922,196 florins; total revenues, 508,840,624 florins; deficiency, 27,081,572 florins; an increase over the deficiency of 1886 of 18,289,642 florins. This deficiency of 27,081,572 does, however, not begin to cover the total financial demand of the monarchy for 1887. To this sum are to be added the credits granted by the Delegations for extraordinary military requirements and for the state railroad subsidies; the first amounting to 36,015,000 and the latter to 3,668,000 florins, so that the minister of finance will have to arrange for a total deficiency for the year 1887 of about 66,700,000 florins.

As a matter of course the interest to be paid by Austria will increase considerably, and as an inevitable consequence internal taxation will also increase. And it would seem as if it were well-nigh impossible that under all these unfavorable circumstances an improvement of the industrial conditions of the monarchy could be expected in the near future. The economic, that is, the tariff disarmament combined with the military disarmament of the European nations would at once change the aspect of affairs, and prosperity would take the place of [illegible] the nature and extent of which we, in our favored [illegible] condition, can form no

WHITE-LEAD INDUSTRY OF AUSTRIA.

REPORT OF CONSUL-GENERAL JUSSEN.

As the white-lead factories of this Empire are not situate within my district, I have had no opportunity of personal examination and observation, but had to resort to written communications in order to ascertain details.

Four different grades of white lead are known to the Austrian trade, viz: (1) Kremserweiss (Kremser white); (2) Venetianerweiss (Venetian white); (3) Hamburgerweiss (Hamburg white); (4) Holländerweiss (Holland white).

Kremserweiss (Kremser white), as your correspondents, Messrs. Harrison Brother & Company, of Philadelphia, suggest in their communication to the Department, under date of May 3, 1887, bears this name because at some remote period an excellent quality of white lead was manufactured at Krems, a small and ancient city in Lower Austria. At present no white lead whatever is manufactured at Krems, and dealers here assert that for at least one hundred and fifty years no white lead has been produced at Krems. The industry of the city has for a long time been confined to the manufacture of hardware, mustard, and vinegar; but the best quality of white lead still bears the name of "Kremserweiss."

"Cremnitz" weiss, or white, is an appellation unknown to the trade here, and doubtless originated in the similarity of the two names of Krems and Cremnitz (or Kremnitz). Kremnitz (or Cremnitz) is a small city (population, 8,550) in the Bars Comitat in Hungary, and I am informed by Austrian dealers that no white lead whatever is manufactured there. Dr. I. Szabo, professor of geology at the University of Budapest, states, in answer to an inquiry made by Consul Sterne, that white lead has never been manufactured at Kremnitz in any quantity whatever. Mr. Henry Sterne, United States consul at Budapest, informs me further that the Hungarian dealers in white lead state that no white lead is manufactured at Kremnitz, and that Kremserweiss, but not Kremnitzerweiss, is known in the Hungarian market. The city of Kremnitz is known for the gold and silver mines situate in the immediate vicinity, and particularly for the so-called Kremnitzer ducats coined at the Kremnitzer mint. Kremnitzer white lead is clearly an American misnomer.

Another grade of white lead is called Venetianerweiss (Venetian white) because at some remote period, so remote that no definite recollection or tradition of the exact period exists, an excellent quality of white lead was manufactured at Venice, and a particular grade of the lead still retains the appellation.

For a similar reason a certain shade of red is called Venet[illegible]
When Venice was famed for its

of manufacture, as well as Dioscorides (De Mater. Med., lib. v, p. 103), who lived in the same century; and Pliny states (lib. 24, cap. 8) that the white lead manufactured at Rhodes was the best grade then in the market. After the downfall of the Roman Empire the manufacture of white lead was first introduced at Venice, subsequently at Krems, Austria, and still later in Holland and England, and last of all in the other European countries.

According to Basilius-Valentinus, who wrote at the close of the fifteenth century, white lead was already, at that remote period, very extensively adulterated. (Litzbe's Testament (last will), part iv, p. 237; H. Ludwig, Handbook of the Process of Manufacture of White Lead and Sugar of Lead.)

Kremser white contains the slightest possible admixture (a trace only) of indigo.

Venetian white contains equal parts of lead and baryta (Schwerspath) or blanc fixe.

Hamburg white contains one part of lead and two parts of Schwerspath or blanc fixe.

Holland white contains one part of lead and three parts of Schwerspath or blanc fixe.

(See Kern and Stohmann, Mussprat; Encyclopædia Handbook of Technical Chemistry, third edition, vol. i. Braunschweig, 1874.)

THE RAW MATERIAL.

The raw material for the manufacture of white lead is obtained from the lead mines, the most important of which are situate in Villach and Bleiberg in Kärnthen (Carinthia). Lead is the only raw material used; silver ore is not used. Mr. J. Ranier, a white-lead manufacturer of Klagenfurth, in the consular district of Trieste, writes to Consul Gilbert, who addressed him on the subject in question at my request, that pure white lead can only be manufactured from ore or lead which does not contain any appreciable quantity of silver ore; that every ore containing silver must also necessarily contain arsenic, antimony, or copper, which metals cannot be entirely separated from the lead ore, and therefore make a manufacture of pure white lead impossible.

The price of the raw material or lead (Carinthian lead) is from 18 to 20 florins per meter centner (221½ pounds). The average market price of white lead is as follows:

Kremserweiss (or white), 45 florins per meter centner. Venetian, Hamburg, and Holland white is quoted by the Vienna dealers at 32 florins per meter centner. Mr. J. Ranier, one of the white-lead manufacturers of Klagenfurth, quotes white lead at from 28 to 45 florins per 100 kilograms or meter centners.

Mr. Paul Herbert, the proprietor of the largest white-lead factory in Klagenfurth, quotes the price of white lead at from 11 florins to [illegible] according to quality.

[illegible] white lead exported

means an assured certainty. It is not to be supposed that the article was overvalued in the invoices.

WAGES.

Mr. Paul Herbert reports that he pays his workmen from 1 to 2 florins per day for 10 hours' labor, while Mr. J. Rainer, another Klagenfurth manufacturer, admits that he pays his laborers only from 80 kreuzers to 1.50 florins for 10 hours' labor. I am informed from other sources that wages vary from 1 to 2 florins per day for from 8 to 10 hours' labor. A fair average, I presume, would be about 1.25 florins, or 50 cents, for 8 hours and about 1.50 florins, or 60 cents, for 10 hours' labor.

American white lead is unknown in the Austrian market, and all manufacturers and dealers concur in the opinion that it would be quite useless to attempt the exportation of white lead from the United States to Austria, first, because they claim that the Austrian raw material is much better than that obtainable in the United States (the Austrian lead ore being the best in the world), and secondly, because they believe the Austrian process of manufacture to be superior to any other known process.

The duty imposed upon white lead by the Austro-Hungarian tariff is 3 florins in gold or 3.75 in paper per 100 kilograms.

Austrian statistics furnish no information either as to the quality of lead ore produced or as to the quality of white lead manufactured, and the manufacturers do not seem to be willing to give exact information as to the quantities produced by them respectively.

Austrian white lead, or more properly Klagenfurth white lead, is exported to all European countries, to Africa, Asia, and the United States, but as only the finest qualities can bear the high costs of transportation, the total export is not very considerable. The latest statistical reports put the quantity of white lead exported during the year 1886 at 4,570 meter centners (1 meter centner = 221½ pounds English), against 1,969 meter centners imported during the same period.

The white lead imported into Austria-Hungary consists probably of the cheaper adulterated qualities manufactured in Germany.

Consul Gilbert reports that the total export of white lead to the United States via Trieste during the year 1886 amounted to 1,902 metric quintals (1 metric quintal = 1 meter centner), of which 476 meter centners were exported to the United States.

The following table, furnished by Consul Gilbert, shows the total export from Trieste by land and sea during 1886 in detail:

Countries.	By sea.	By land.
	Metric quintals.	*Metric quintals.*
Great Britain	591	.....
United States	476	.....
Turkey	257	.....
Austro-Hungarian ports	248	38
Italy	248	40
Greece	47	.....
Spain		

From the same source I have ascertained that the total exports of white lead to the United States via Trieste during 1886 amounted in declared value to the small sum of $7,036.22; $306.32 of which total sum was returned in the printed annual statement of exports as miscellaneous.

As already stated, Austrian statistics furnish no exact data as to the quantity of lead ore mined or lead produced in Austria. The latest statistical report of the Austrian ministry of agriculture, now before me, gives exact figures as to the amount of gold, silver, and coal produced, but it groups lead under the general classification of "other minerals," and gives no special information as to lead alone. German statistics estimate the annual production of lead in the several European countries at the following figures:

[1 centner equal to 110 pounds English.]

Countries.	Quantity.	Countries.	Quantity.
	Centners.		*Centners.*
Austria	85,000	Hanover	60,000
Prussia	43,300	Brunswick	3,000
Saxony	13,600	Nassau	6,500
Baden	2,000	Other German states	3,000

White lead is sold by the several Austrian manufacturers only in a dry state. They do not grind it in oil, but leave this admixture to the dealers and consumers (painters). The manufacturers also claim that they do not adulterate their product with other and cheaper white substances, and that they add only the purest sulphate of baryta (Schwerspath) for the purpose of producing the qualities known in the market as Venetian, Holland, and Hamburg white lead. The fact that cheaper qualities of white lead are imported into Austria-Hungary (1,969 meter centners during 1886, as above stated) seems to be strong circumstantial evidence in proof of the honest process of manufacture contended for by Austrian producers. They charge that German manufacturers are in the habit of adulterating their product with all sorts of cheap ingredients—terra alba, for instance—and that for this reason Austrian white lead is in greater and better demand than the German article. This demand is supplied entirely by three white-lead factories situate at Klagenfurth, of which that of Mr. Paul Herbert is the largest. Possibly white lead may be manufactured at other points, but if so, the quantity produced is so very inconsiderable that the Vienna dealers have no knowledge whatever of its existence.

THE METHOD EMPLOYED IN AUSTRIA IN MANUFACTURING WHITE LEAD.

In addressing the State Department for the purpose of ascertaining the method of the manufacture of white lead in Austria, through inquiries to be instituted by the United States consuls, the American white-lead manufacturers do not seem to have taken into considera-

that the Austrian manufacturer should be willing to inform an American consul of the secret method by which he produces the "Kremser white," and should thus create for himself a successful competitor in the United States, and for that matter in the markets of the world, a competition which so far has been quite out of the question, and which will probably never arise unless the Klagenfurth producer is generous enough to impart his knowledge to those who are anxious to make practical use of it. At any rate, it would seem that the solution of this riddle of manufacture could not fairly be expected, or even solicited, without the contemporaneous offer of a consideration as an equivalent for the value received.

That the "Kremserweiss" is really the best grade in the European market is quite evident from the fact that it commands a much higher price than either the French, German, or Scotch article. It appears from the reports of Consuls Mason, Eckstein, and Underwood, published in Consular Reports No. 73, that the German, French, and Scotch white leads are quoted in their respective markets as follows: Pure French white lead, 55 to 65 francs per 100 kilograms, or 5 to 5.88 cents per pound; German white lead, 45 to 50 marks per 100 kilograms, or 4.88 to 5.43 cents per pound; Glasgow white lead, £16 per 2,240 pounds, or 3.44 cents per pound; while the best Kremser white commands the price of 50.5 florins per 100 kilograms, or 9.14 cents per pound, in the home market.

It stands to reason, therefore, that the Klagenfurth manufacturers of white lead are in the possession of some advantageous process of manufacture which they would naturally guard against all inquiry and investigation. If the Austrian manufacturer cannot be induced to part with the results of his experience and exclusive knowledge even for an adequate consideration, then it only remains to purchase this knowledge from some employé with sufficient experience, and transport him to the United States to put his skill into practical operation. In this precise manner the owners of Russian petroleum wells and refineries have already availed themselves of the superior skill of American refiners of petroleum, many of whom are now employed in Russia, as well as in other parts of the continent of Europe, supporting and strengthening the competition of Russian oil as against American petroleum in the markets of Europe.

Although a thorough and satisfactory accomplishment of the object of investigation could not reasonably be expected under the existing circumstances, I believed it my duty to make an effort to obtain as many details as possible. The result of the inquiry may be summed up in the characteristic answer which Paul Herbert, the principal white-lead manufacturer of Klagenfurth, transmitted to Consul Gilbert at Trieste, in whose district the factory is situated. Mr. Herbert says, *verbatim et literatim:* "White lead (Bleiweiss) is manufactured in this country according to the Holland method, by a system of chambers developed by an experience of many years." This is the sum total of his answer. How and to what extent this system is developed and what the exact nature and description of this system is, Mr. Herbert does not condescend to say, and it is not to be expected that he should, since the development of this sytem is undoubtedly a valuable business secret. This Holland or Dutch

and improvements in the old method to enable him to produce the very excellent article of "Kremserweiss."

The following methods are also employed in Europe in the manufacture of white lead, viz:

Lothman's process or method (see London Journal of Arts, September, 1847, p. 92); Gannal's method; Fourmetier's method; Pattinson's method; Chenot's method; method employed in the white-lead factory of Theodor Lefebre & Co., in Moulins-Lille, Departement du Nord, France; Barreswill's method (see Journal de Pharmacie, October, 1882, p. 291). All of which methods and processes are particularly described in H. Ludwig's Hand-Book for the Manufacture of White Lead and Sugar of Lead, second edition. Weimar, 1854. B. Fred. Voigt, printer and publisher.

EXPORTS OF AMERICAN WHITE LEAD TO AUSTRIA.

In view of all the facts it would seem as if the prospect of exporting American white lead to Austria was decidedly unfavorable. First of all, the American manufacturers cannot as yet produce the best quality of Kremser white, else this grade would not be exported from Trieste to the United States at the price of 50.5 florins per 100 kilograms, or 9.14 cents per pound. As regards the cheaper grades, the German competition would have to be met, and the German manufacturer enjoys a decided advantage in the matter of transportation. Moreover, cheap grades of white lead are, as already stated, manufactured in Austria, where raw material is to be had in abundance, and, as is claimed, of a very superior quality. Last of all, another factor would have to be considered as regards competition in cheap and adulterated white lead. Barytes are admitted free under the Austro-Hungarian tariff, while the American tariff imposes a duty of one-fourth cent per pound on unmanufactured barytes and 10 per cent. ad valorem on manufactured barytes—another illustration of the truth of the assertion "that the American tariff on raw materials impedes the progress of the American export trade."

EDMUND JUSSEN,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, July 1, 1887.

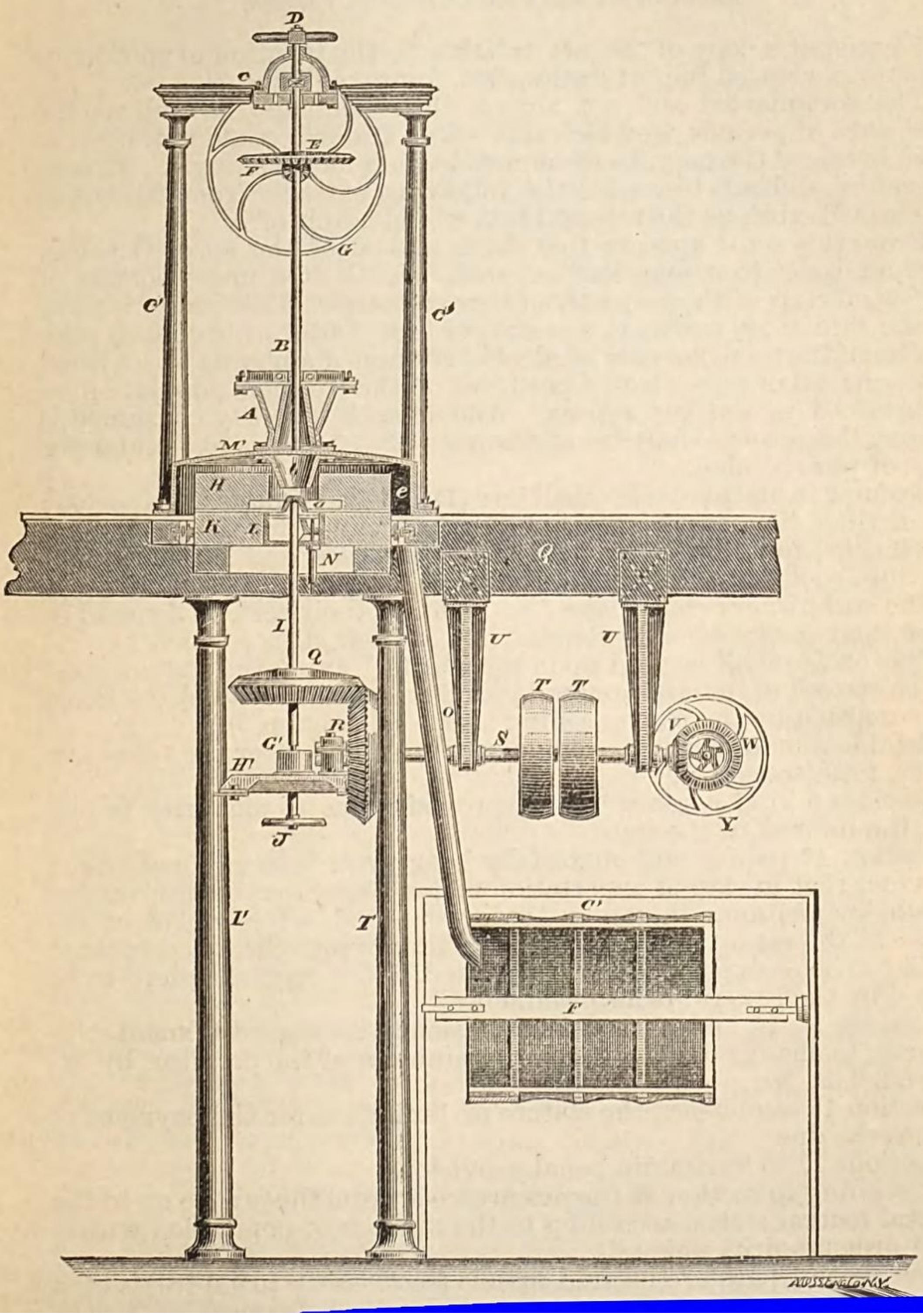
DESCRIPTION OF WHITE-LEAD GRINDER.

A is a stationary receptacle of cast iron lined with bronze, provided with diagonally running tooth-shaped grooves. In this receptacle a grooved cone rotates, which is fastened to the shaft B, which rests in bearings, as shown by drawing.

The wheel D enables changing the elevation of cone, the grinding being thus regulated; motion is imparted to the shaft B through the girth-wheel G.

H is the upper millstone, of white marble, with a cylindrical hole, into which is fastened a bearing to receive the end of the mill-iron J.

K is the bottom millstone, also of white marble, provided with a square hole, [illegible] this box is divided into six compartments, three of [illegible]ining wedges. Each of these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TAXATION OF SPIRITUOUS LIQUORS IN GERMANY.

REPORT OF VICE-CONSUL-GENERAL VERSEN.

I transmit a copy of the act relative to the taxation of spirituous liquors, increased import duties, &c., approved June 24, 1887.

The complicated and not always clear language, as well as the structure of periods, in which this act is framed, could not, even to a well-trained German, be recommended as a model of style. It was, therefore, difficult to render the following extracts from this act in as clear English as the original text would admit of.

From this act it appears that from and after the 1st of October, 1887 an excise (consumption tax) shall be collected under control of excise officials of the respective German states. This excise is fixed at the rate of .50 mark (11.9 cents) per liter (1.0567 wine quarts) pure alcohol if the total quantity of alcohol consumed amounts to 4.5 liters (4.75 quarts) of pure alcohol per head of the German population as ascertained in the last census. And if such quantity consumed is larger, this excise shall be at the rate of .70 mark (16.6 cents) per liter of pure alcohol.

Exempt from this excise shall be: (1) distilled liquors, if exported; (2) distilled liquors used for industrial purposes, for the production of vinegar, for sanitary and scientific purposes, and for polishing, heating, cooking, and lighting purposes.

The still-owners shall have the right, at their cost, to demand to have their spirits officially denaturized at their stills (section 1).

This excise shall be paid upon the spirits leaving the state control (to be excised at the still-houses by excisemen of the state) for home consumption by the person selling them out (section 3).

Rectification of spirits is compulsory from and after the 1st of October, 1889 (section 4).

Sections 5 to 11 contain special provisions as to measures to protect the interest of the state.

Section 12 (which will materially bear upon international trade) provides that in case of exportation of products, for the preparation of which spirituous liquors in trade were used, a repayment of the excise at the rate of .50 mark per every liter of pure alcohol contained in the articles exported may be granted under special orders to be issued by the general federal council.

Sections 13, 14, and 15 contain provisions with regard to small still-owners, to change of ownership, examination of the premises by excise officials, &c.

Section 16 establishes the statute of limitation for the payment of any excise due.

Sections 17 to 38 contain penal provisions.

According to section 39 the net proceeds from this excise go to the [illegible] number of population within

making spirituous liquors and of an additional tax to the said excise).

Section 40 provides for the general introduction of the act of July 8, 1868, as far as the same has not been modified by sections 41 to 43 of the act under consideration.

This act intends that in future all German states are to form but one "ardent-spirits-tax union," while up to date there exist in Germany two different unions of that kind, viz, the Bavarian union, to which belong Bavaria, Wurtemberg, and Baden; and the "Reichs-Branntwein-Steuer-Verein," a union including all the remaining German states.

Within either union a brandy excise was collected, viz:

(1) In case of using grain or any other farinaceous substances, or beets and beet sirup (molasses): (*a*) from the so-called "agricultural" distilleries in operation only for the time from November 1 up to May 16 and working off smaller quantities of grain and other farinaceous substances of own produce, at the rate of 25 pfennigs (5.9 cents) per every 22.9 liters of mash contained in the vat or tub; (*b*) from other than agricultural distilleries, 30 pfennigs (7.14 cents).

(2) In case of using other material, taxation was effected according to the quantity of the material used in the production of ardent spirits; the rates of excise varied according to the material used.

Section 41 of the new act changes that mode of taxation, providing that—

(1) The collection of the "mash-tub tax" shall hereafter take place only (*a*) in the case of agricultural still-houses, working exclusively grain or potatoes, and using *rendues*, or waste, either as food for cattle or manure, on own estates, and (*b*) in case of distilleries such as are working off molasses, beet, and beet juice.

(2) The "mash-tub tax" is fixed at 1.31 marks ($0.317) per hectoliter of mash contained in the mashing-vessel, and this in every instance of mashing. At agricultural still-houses in operation during the time from October 1 to June 15 the "mashing-tub tax" shall be collected at the following fractional rates of the above rate: (*a*) At $\frac{6}{10}$ if, in the course of one day, on an average, not more than 1,050 liters contained in the vats are mashed; (*b*) $\frac{8}{10}$ if not more than 1,500 liters, and (*c*) $\frac{9}{10}$ if not more than 3,000 liters are mashed.

(3) Of tax on materials used in the make of ardent spirits there shall be collected (*a*) .35 mark (8.3 cents) per hectoliter of husks beaten together of grapes; (*b*) .45 mark (10.7 cents) per hectoliter of kernel fruit, waste thereof, and of all kinds of berries; (*c*) .50 mark (11.9 cents) per hectoliter of brewing refuse, pressed dregs of wine, and roots of all kinds; (*d*) .85 mark (20.5 cents) per hectoliter of wine and cider, liquid dregs of wine, and stone fruit. A repayment of the "mashing-tub tax" and of the tax for materials used in making spirits, may be granted by the federal council not only for liquors used in industry, but also in case of liquors used for sanitary and scientific purposes, or for cleaning, heating, cooking, and illumination.

ADDITIONAL TAX TO EXCISE.

Section 42 provides for the collection of this additional tax in case of so-called "industrial" distilleries (not agricultural), which work-

On "ardent spirits" manufactured in such industrial distilleries as are subject to an excise an additional tax of .20 mark (4.7 cents) per liter of pure alcohol shall be levied.

Distilleries that existed before the 1st of April, 1887, and that do not mash more than 10,000 liters in capacity of the mash-tub during one day, shall, to the extent of their working theretofore, be allowed a reduction of the additional tax by .04 mark per liter of pure alcohol; and a reduction by .02 mark in case of their mashing more than 10,000 liters, but not to exceed 20,000 liters.

In like manner, at petition, other than industrial distilleries, not working molasses, beet, or beet juice, can be exempted by the Governments of the respective German states from payment of the "mashing-tub tax" or "spirits-material tax."

In case agricultural distilleries working off grain should make use of this privilege (*a*) on ardent spirits manufactured in distilleries producing not more than 100 hectoliters of pure alcohol in one year, an additional tax of only .12 mark (2.8 cents) shall be collected; (*b*) on ardent spirits in case of distilleries manufacturing in one year more than 100 but less than 150 hectoliters, only .14 mark.

Agricultural distilleries mashing on one day more than 1,500 liters in capacity of tub shall be subject, if operated in the time from June 16 to September 30, for this time, instead of to a "mashing-tub tax," to an additional tax to the excise, payable, under No. I, subsection 1, by industrial distilleries.

On distilled liquors manufactured in agricultural distilleries mashing in one day more than 10,000 but not to exceed 20,000 liters in capacity of the mash-tub, as far as such liquors are subject to excise, an additional tax at the rate of .02 mark per liter of pure alcohol shall be paid; and .04 mark in case of such liquors being made by agricultural distillers mashing more than 20,000 liters in one day.

INCREASED DUTY ON ARDENT SPIRITS IMPORTED.

Section 44 provides that from and after the day of promulgation of this act, on arrack, cognac, and rum imported a duty of 125 marks ($29.75) [heretofore 80 marks, $19], and on all other ardent spirits 180 marks ($42.84) [heretofore $19] per 100 kilograms shall be collected.

Section 45 relates to the so-called "transition tax or impost" on spirituous liquors imported from one German spirits union into the other, fixing 96 marks ($22.84) per hectoliter of pure alcohol.

Section 46 provides that on the 1st of October, 1887, on all ardent spirits in free circulation within the union shall, subject to the orders of the federal council, an excise be paid in the form of a so-called "Nachsteuer" (after-tax) at the rate of 30 marks per liter of pure alcohol, allowing some cases of exemption.

Sections 44, 48, and 49 contain special provisions as to the introduc-

§ of this act.

LAW.

such promulgation, though the act itself does not take general effect until the 1st day of October, 1887. But there is no doubt that the period intervening between the time when the bill was first introduced into and passed its first reading by the German Reichstag up to the time of the promulgation of the act will have been fully utilized for the quick importation of ardent spirits of every description.

The second important effect which the promulgation of this act will exert is a reduction of the activity of distilleries up to October 1, 1887, and consequently an enhancement of the "mashing-capacity-tub" and of the export bounty up to the 1st of October next.

With regard to this increase of the export bounty, the *Breslauer Zeitung* speaks of it as an unprecedented occurrence, as the same writes as follows:

> Every item of spirits exported during the next three months receives a bounty of 48 marks per hectoliter, although on same as far as at present ready for use only a tax of 16 marks has been paid. The exporter thus receives a net bounty of at least 32 marks. No man knows how large stores of spirits are at present in Germany. Some experts estimate these stores at far over 1,000,000 hectoliters. After the 1st October the result will be known, as well as the amount of loss the German Empire may have sustained by the operation of this new act. Thereby an artificial pressure upon prices in the international market will be exerted, which rightfully will much gall the temper of foreign countries. * * * It involves a transgression on the principle of international law, now more and more embodied in treaties, that the competing foreign country ought not to be injured by such export premiums.

F. VON VERSEN,
Vice-Consul-General.

UNITED STATES CONSULATE-GENERAL,
Berlin, July 2, 1887.

SUGAR BOUNTIES IN GERMANY.

REPORT OF CONSUL MILLAR.

A short time ago the *Leipziger Zeitung*, which is an official organ of the Saxon Government, published an article on the above subject with reference to the general question of bounties and the limits within which they should be confined. As the subject is in itself one of considerable importance, and is now occupying the attention of the Imperial Government, I have thought it worth while to summarize the arguments and conclusions of the article.

The duties of the Imperial Government are defined by the writer as twofold: First, to see that an important and wealthy industry, such as the sugar fabrication, contributes its due share towards the taxes of the country; second, to protect the industry from the ruinous effects of French and Austrian competition, which would otherwise bring disaster upon those districts of Germany which depend upon the continuance of the sugar industry for their prosperity. The mean between these two functions, however, is no longer maintained. Last year 8,500,000 cwt. of sugar were consumed, on which a tax of 9 marks per cwt., amounting to about 76,000,000 marks, was levied. But of this

years to consume the entire income derived from the duty. Obviously this state of things cannot continue, and the Governments of all three countries have been compelled to devote their attention to the question.

The remedy, in the view of the writer of the article, is to be found by limiting the influence of protective duties. Such duties should confine themselves to securing the home market for the native producer; they should not attempt to secure for him the control of foreign markets. An industry which desires to extend its operations beyond the frontiers of its own country must do so with its own resources and at its own risk. It cannot expect support from the tax-payers of the fatherland. Such support is not only unjust to the tax-payers and to other industries; in the long run it is injurious to the favored industry itself, and an industry which cannot freely encounter competition does better not to enter into the lists at all.

The article then proceeds to consider the prospects of the sugar industry after a reduction of the bounty. As respects methods of cultivation and manufacture, the sugar industry of Germany is superior to that of any other nation; and if other German industries are able, under less favorable conditions, to compete successfully with other countries, the sugar industry may reasonably be called on to do the same. An examination of statistics leads to the same conclusion. The European production of sugar last year was as follows:

Countries.	Quantity.	Countries.	Quantity.
	Cwt.		*Cwt.*
Germany	21,200,000	Belgium	1,900,000
Austria	10,500,000	Holland	1,000,000
France	10,000,000	Total	53,000,000
Russia	9,400,000		

The export from Germany in the last five years is estimated to have been as follows:

Years.	Quantity.	Years.	Quantity.
	Cwt.		*Cwt.*
1882–'83	9,400,000	1885–'86	10,000,000
1883–'84	11,900,000	1886–'87	13,000,000
1884–'85	13,500,000		

These figures show that German sugar plays a leading part in the markets of the world, and that foreign countries are largely dependent on Germany for their supplies. The only competition to be feared is that of France, and even here it is to be remarked that a long time [illegible] in a position to raise its production from [illegible] increased

each cwt. of raw sugar, so that he presumably uses about 10½ cwt. of beets to produce 1 cwt. of sugar. In point of fact he only uses 8½, so that he gets about 2 marks surplus bounty on each cwt. of manufactured sugar. The refiners are a smaller, and, for the state, less important class than the farmer manufacturers of raw sugar, but they receive greater benefits. The tax paid by the refiners on raw sugar (that is, the difference between the home and export prices) is, as above, 9 marks per cwt. Ten cwt. of raw sugar produce nine of refined, so that the export bounty should not exceed 10 marks. In fact it amounts to 11.10 marks ($2.64), so that the state loses 1.10 marks (26 cents) on every cwt. of refined sugar exported. This inequality is not removed by the new proposals for the reduction of the bounties, inasmuch as the tax on raw sugar is reduced to 8.63 marks, and the export bounty on refined sugar to 10.75 marks. Strictly, the export bounty should be reduced to 9.58 marks, so that the new proposal would produce a loss to the state of 1.17 marks per cwt. In other words, the state will collect some 20,000,000 marks from the farming manufacturers of raw sugar to return the bulk into the pockets of the few refiners, while only a million or two will come into the treasury. This form of the proposal is no doubt due to the great political influence of the refiners; but the article concludes with the belief that the Imperial Government and the Reichstag will nevertheless view the matter more in the light of the general welfare and protect the interests of the many against those of the few.

SAM'L ROLFE MILLAR,
Consul.

UNITED STATES CONSULATE,
Leipsic, Germany, July 21, 1887.

POPULATION AND TRADES IN SAXONY.

REPORT OF CONSUL MILLAR.

Under this heading I have brought together a number of statistics collected from various sources respecting some remarkable changes which have occurred in the last decades in the proportions in which various occupations are followed in Saxony, and the results which these changes have had in altering the distribution of the population between town and country.

The following table shows the distribution of the population among the principal types of occupation in the years 1849 and 1882:

Class of occupation.	Actual number of persons employed.		Percentage of total.		Increase or decrease.
	1849.	1882.	1849.	1882.	
Total population					

The principal features of this table are the retrogression of land culture and the progress of trade, pure and simple. The number of farmers has decreased absolutely by 14 per cent. and relatively to the population by 7½ per cent., while the number of tradesmen has increased absolutely threefold, or, relatively to the population, double. Another feature of importance is the comparatively large increase in laborers of no definite occupation.

Both these phenomena are of an unfavorable character. Not only is the increase in the number of middlemen prejudicial both to the consumer and to the producer; it leads to undue competition among the middlemen themselves, and already the cry of "overcrowding" is heard in most trades. The growth, too, of a large class of untrained laborers is not unfraught with danger to the community. It is pointed out by the writer from whom I derive the figures that the class in question is one which can have no interest either in any special occupation or in the maintenance of social institutions in general. Such men are readily accessible to anti-social agitation, and their existence explains to a large extent the rapid spread of social democracy.

It will be observed in the above table that the figures for industrial occupations show almost as much increase as those for land and farming show decrease, from which it might be inferred that these two branches stand in an inverse relation to each other. The inference is confirmed by the following table of the proportion of inhabitants engaged in farming and in industry in the chief states and provinces in the German Empire. It will be seen that where industry flourishes farming employs but a small percentage of the population, and that where the bulk of the population devote themselves to farming it is at the expense of industry. It should also be noted that the population is, on the whole, densest in the manufacturing provinces. A fourth column, which shows the population of persons engaged in trade, does not admit of any reliable conclusions; the factors which regulate the development of trade are obviously independent, to a large extent, of farming or industrial conditions.

State or province.	Number per 1,000 inhabitants engaged in—			Position in regard to density of population.
	Industry.	Farming.	Trade.	
Saxony (Kingdom)	562	199	119	1
Rhineland	473	317	108	2
Westphalia	468	351	89	7
Thuringia (eight states)	447	367	79	11
Brunswick, Anhalt, Waldeck, and the two Lippe	418	367	95	13
Saxony (provinces)	403	375	103	12
Alsace-Lorraine	365	419	92	5
Hesse (Grand Duchy)	365	415	106	3
Hesse-Nassau	354	405	115	10
Silesia	352	447	83	9
Rhine Palatinate	351	466	87	4
Wurtemberg	344	481	73	8
Brandenburg (without Berlin)	328	444	95	18
	315	491	90	6
	306	488	86	14
	307	442	122	15
			101	19
				21

Returning to the Kingdom of Saxony, it will be remarked that this small state stands at the head in respect both of density of population and devotion to industrial pursuits. It may not be without interest if I add in a third table the names of the principal Saxon industries, together with the proportions which fall to Saxony and three or four other of the chief German states:

Occupation.	Proportion in—				
	Saxony.	Prussia.	Bavaria.	Wurtemberg.	Baden.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Embroidery, lace, and crochet work in factories	80	15	.....	1	.....
Knitting as home industry	60	18	4	4	.....
Knitting in factories	60	14	1	7	.....
Preparation of spinning materials	59	33	.....	.....	2
Embroidery, lace, &c., home industry	56	22	3	4	.....
Trimmings	46	43	2	1	.....
Musical instruments	43	27	4	7	2
Bleaching, dyeing, and finishing of spun goods	35	39	3	2	2
Ladies' ready-made clothing (confection)	35	44	11	1	.....
Type-founding, type-cutting, and wood-cutting	33	38	4	8	.....
Weaving as home industry	21	57	8	3	1
Spinning in factories	20	32	12	6	5
Paper and pasteboard manufacture	20	41	9	6	3
Bookselling, &c	20	49	10	4	2
Straw, wood, bast weaving, &c	19	30	10	4	7
Millinery and artificial flowers	18	53	9	2	2
Book-binding, pasteboard-box manufacture	18	50	10	5	3
Undertaking	18	45	15	3	1
Weaving in factories	17	47	6	3	3
Printing, lithography, &c	16	51	9	4	3
Machine and tool manufacture	15	47	9	3	4
India-rubber and hair plaiting and weaving	15	65	1	1	5
Glove, corset, cravat, &c., manufacture	15	46	6	17	.....
Peddling	15	45	11	10	3
Forwarding and commission trade	14	44	6	.....	3
Turning	14	40	12	5	2
Lamp manufacture	14	74	2	.....	.....
Hat-making, furriery	13	57	8	4	3
Iron-founding	12	60	6	2	2
Quarrying	12	41	16	5	5
Leather, india-rubber, &c., goods	12	62	3	.....	12
Gilding	12	59	12	2	3
Artand artistic trades (exclusive of theater and music)	12	51	12	3	5
Entire population	6	60	11	4	3

This table illustrates very strikingly that concentration of industrial occupations in Saxony which was indicated in a previous table. In seven branches of manufacture Saxony stands absolutely at the head of the German states; in all the branches enumerated Saxony is interested in at least double the proportion which her population bears to that of the German Empire. With few exceptions the only competitor of Saxony is Prussia, and though Prussia, owing to her large extent, absorbs the lion's share of most of the industries, yet the portion in which she does so, unlike that of Saxony, is almost without exception less than might have been expected from her population.

To complete the view of Saxon industries I add those in which the

try, thatching, auctioneers, pawnbrokers; 9 per cent. banking and money, market gardening, basket-making, photography, builders; 8 per cent. coal, sand, lime and clay works, glass and porcelain manufacture, music and theater, carriage of persons and goods, metal work (exclusive of iron), tailoring, baking, rope-making, saddling, pottery, hotel-keeping, commercial agencies, surveying, servants, messengers and porters, baths, and laundries.

In other occupations Saxony participates only in a proportion which does not exceed that of her population to the population of the Empire.

There is one point in the above table which deserves further consideration, that is, the "home industry," which is so important a factor in lace, embroidery, knitting, and weaving. Nearly half a million people are engaged in these and similar home industries in Germany, and of this number nearly 140,000 fall to Saxony alone. Of these, again, 90, 000 fall to the department of Zwickau, which is thus the chief seat of home industry in Germany. And as Saxony stands absolutely alone at the head of Germany, so does Zwickau in certain branches of home industry. These are:

Occupation.	Number persons.	Occupation.	Number persons.
Stocking manufacture	26,250	Lace and embroidery of white stuffs	5,424
Trimmings (passementerie)	12,498	Stocking-finishing	4,437
Woven goods, mixed	10,133	Glove manufacture	3, 19
Wool-weaving	7,723	Ladies' ready-made clothing (confection)	4,133

In linen goods Bautzen, with 11,487 persons, is pre-eminent.

A further result of this active development of industrial life in Saxony is the influx of foreigners and strangers and the movement of the population within the state itself.

It was shown in the first table of this report that Saxony is more densely populated than any other German state. Not only is there, however, less emigration from Saxony than from any other part of Germany, but in 1885 there was actually in the state a non-Saxon population of 343,032 persons, and of these 290,364 came from other states of the German Empire.

The movement of the population within the state is given by a comparison of those districts which show increase of population over the excess of births with those that show a decrease. It appears that while the smaller towns and country districts show a total decrease of nearly 60,000, there is a surplus population of more than 69,000 in the following city and suburban districts:

Leipsic district	15,034
Dresden town	14,489
Leipsic town	13,379
Chemnitz:	
Town	9,546
	8,140
	4,313
	2,329

The authority from whom I have derived these statistics further points out that this surplus population is mostly composed of females, and endeavors to explain this curious phenomenon. In view of the large number of females who find employment in textile industries it has been suggested that the exchange of factory for country life has produced the migration of females to towns. But the writer referred to remarks that Leipsic and Dresden, where the chief increase has taken place, are not especially towns of textile factories. He is inclined rather to find the direct cause in the demands for domestic help, and to attribute to factory life only an indirect influence, in so far as many daughters of the middle and lower classes in towns prefer some kind of business occupation to domestic service either in their own or other families. The passage of the girls to business or industrial life naturally produces a demand for domestic servants; and it confirms the writer's theory that most of the girls in this occupation in the larger towns come from the country.

Whether or not this solution be correct, there is no doubt of the attractive influence of the town on country people, and it is to be feared that this influence is often very harmful. It is, at any rate, well worthy of attention in states whose prosperity depends on the maintenance of a vigorous agricultural population.

SAM'L ROLFE MILLAR,
Consul.

UNITED STATES CONSULATE,
Leipsic, Germany, June 18, 1887.

SEWING-GIRLS IN GERMANY.

[Translated from a report to the Imperial Diet of Germany, and transmitted to the Department by Consul Joseph Falkenbach, of Barmen.]

In the spring of 1885 the Imperial Diet took the initiatory steps to ascertain the proportion of wages of the working women in the linen and dressmaking branches of industry, also the facts in regard to the sale and furnishing of working materials to the female employés by their employer and the prices charged for such material by the latter. The representative of the chancellor of the Empire lately communicated to the Imperial Diet, in a series of reports, the results of these inquiries. The impression made by these reports is indeed extremely sad. So many people complain of poverty and call for relief from the state Government; but, alas! we meet in large cities, especially in Berlin, with a really frightful misery among the poor sewing-girls, who live by themselves, and who do not even earn enough in twelve health-destroying hours to pay for the most necessary provisions and for lodging. Woe to the poor girl who, without family or relations to fall back upon, without knowledge or special abilities, must begin the struggle for life! If she is not more than ordinarily fortunate, she will go to ruin with the majority of her companions, either through honorable suffering or through disgraceful immorality. The father who must send his only son into the bloody war does not stand

oil, &c. This point is in itself not without significance, since a Berlin reporter calculates that the average wages of the seamstress in white linen (12 to 15 marks, or $3 to $3.50 per week) are reduced by the payment for thread, &c., to the amount of 1 mark, *i. e.*, from 6.6 to 8.3 per cent.

In relation to the other discoveries about the economical and social condition of the sewing-girls in general, this question is of minor importance, the more so since abuses in this respect have been retained only in a very few parts of Germany. It is expressly stated that the discussions on this subject in the Imperial Diet have, in many instances, led to the abolishment of the evil in question. Whether or not this evil has in the mean time begun to flourish again is another consideration; a lasting remedy in this respect is hardly possible as long as the gigantic demand for employment leaves the fixing of the wages to the mercy of the employer.

If we search after the causes of such almost unbearably low wages, we find invariably, in all reports, the answer, first, that too many girls and women seek for work in the white-linen and dressmaking branches of industry, partly as a means to increase the family income, partly for the purpose of covering their expenses for articles of luxury. Such sewing-women can work for wages at which a seamstress, who has to make almost entirely her living with the needle, will starve.

In the eastern as well as in the western cities of Prussia, and in Wurtemberg specially, appears this ruinous competition. Especially instructive are the situations of the sewing-women pictured in the following report of the Dusseldorf trade counselor:

> Not considering the sewing-women who work on corsets, workmen's shirts, and pantaloons, among whom the daughters and wives of the workingmen largely predominate, it can safely be said that the majority of seamstresses are not to be found among the laboring class. Much more do they belong for the most part to families of retail traders in Dusseldorf, even to families of artist painters and to families of the lower officials of the state and commonalties.
>
> I feel obliged especially to direct the attention of the authorities to the fact that the daughters of post and railroad officials are largely represented thereat, and that in a majority of the cases the officers are through necessity compelled to turn their daughters towards this always dangerous source of industry. Already, through the competition of these officers' daughters for work, have the wages of the laboring classes and poor widows been considerably reduced, and this is done in a still higher degree by the crowding in of female members of the better-situated middle class, not only, as is frequently stated, for the purpose of learning the work and becoming proficient in the duties of the future housewife, but more of gaining an employment. The earnings of such ladies do not serve to satisfy the necessary wants of life, but to gratify their own or the pride of some members of their family they are squandered for articles of luxury, especially for toilet articles. Employers of such ladies declared to me they were often not able to recognize them on the street, in concerts, in theaters and balls, and their own wives and daughters were not in a situation to rival them in toilets. The girls who are compelled to work for a living and to sit side by side with such ladies, or to deliver finished work sometimes in their presence, do not wish to contrast too much in their outer appearance—desire to dress in the same fashion—fall out with their parents because they claim their [illegible] and either by dishonesty or through a male friend who [illegible] in

A very favorable report on the moral condition of the sewing-girls comes from Stettin, but it only confirms the statement already made. In Stettin prevails a system of work-rooms, and the promoters of the same are, as a rule, in favor of girls living with their families because they work cheaper; and in order to secure for themselves the daughters of respectable parents they must at once cast off all doubtful characters; the latter generally going to Posen, Breslau, or Berlin.

As a further cause of the poor wages nearly all reports agree to point out the Berlin competition. Thus writes the trade counselor at Dusseldorf:

> As causes of the depressing influences of the Berlin industry are quoted besides the venality, concentration, and intensity of the business there, in the main the immense number of working hands in that city and the greater choice and surprising cheapness thereby produced; besides it may be of importance that the Berlin house industries, as report says, are not subject to the law on relief of the sick, and are, in many instances, supplied from the ranks of prostitutes, something that happens in Rhineland and Westphalia only in exceptional cases.

There is fear, however, that the Dusseldorf expert is, as to the latter point, not altogether correct. The ratio of immorality among workingwomen as a class seems to be in all the larger industrial cities and districts nearly equal. The girl degraded to the last stage of police control does not work any more; the workingwomen who live by themselves almost everywhere have relations with the other sex.

What is the cause, then, of the "fabulous cheapness" of female labor at Berlin? To this fundamental inquiry the report of the Berlin trade council, as far as stated in the official résumé, gives an answer by no means sufficient. It is known that Berlin is, in the dressmaking branch, the leader of the fashion. The report devotes over five columns to the white-linen branch of industry, and indeed, for the most part, to the thread question, settling the whole question of dressmaking in twenty-five lines. Here they follow:

> The situation of the sewing-women in the dressmaking branch, *in toto*, can be called even worse than of the seamstress in white linen. Although the former has no expenses for thread, &c., the proportion of her wages is screwed down to the utmost limit. The profit realized, for example, in the wholesale business of cloak-making, especially for the foreign market, is, principally through a number of interested jobbers, reduced so much that a very skillful seamstress cannot earn more than from 8 to 9 marks per week, and an inexperienced one only from 4 to 5 marks.
>
> Considering that the season for cloak-making only lasts from four to five months in the year, the earrings during the other seven or eight months can be considered only where a sewing-girl is in possession of her own machine, and can take in sewing on aprons, underwear, &c. Many assert that the sewing-girls in dressmaking establishments more frequently fall into prostitution than others. This may be so; the great misery existing here may induce many a one to seek lucre which she at first detested; the constant seeing, manufacturing, and admiring of finery and fancy goods may often create such an intense desire for the possession of such articles that the moral sense is entirely silenced.

This report of the state of things in Berlin is entirely insufficient. In the estimate of wages paid to female dressmakers the trade council may of course be correct; but we believe that the average earnings of a seamstress in white linen 12 to 15

multitude of expenses for necessaries of life, as for dresses, shoes, linen, soap, light, and for unavoidable incidental expenses. Consequently the above wages per week of a common female dressmaker hardly cover one-half of her necessities of life. Wherefrom is she receiving the means for the other half? Either from her family or from another source of industry.

Since, especially in Berlin, a great number of sewing-girls are thrown on their own resources, there must exist to a great extent a good or bad income besides the earnings by the needle. There are likewise decent ways of earning some additional perquisites, for instance, in the situation of a waitress, by leasing rooms, and furnishing board, occupations principally carried on by women of maturer age. But what are the young women going to do, without means, and not able to work, who have the greater desire for pleasure? The young miss forms male acquaintances, and suspiciously tends to prostitution, frequently ending in this abyss. The extremely low wages in Berlin have their cause in the fact that here more than anywhere else workingwomen congregate, knowing where and how to find additional perquisites.

The ladies who grow up in peace under the influence of a well-regulated family life are pleased when they can buy such cheap and yet such handsome white linen and dresses. They do not consider for one moment that the sewing-thread is moistened in tears, that the low prices are generally due to hunger and immorality.

This is indeed a sad picture of the fate of a large portion of the poor sewing-girls, yet it is not any worse than the condition of thousands of poor factory girls, who are often reduced and driven to prostitution by designing men through the instrumentality of their own companions.

GLASS-WORKS OF WALDHOF.

REPORT OF CONSUL MONAGHAN.

In consequence of large import duties being levied on plate-glass imported from France into the Grand Duchy of Baden, a French company established a branch house at Waldhof in the year 1853. This French colony, as it is called, has grown from very modest beginnings to an establishment of large proportions, manufacturing and shipping every year to all parts of the world something over one hundred thousand square meters of plate-glass mirrors. Not being able to learn anything about the methods employed in manufacturing, I devoted my time to making notes on the general management. In the village there are about 1,800 souls; of these 450 to 470 are employed [illegible] works there being two "gangs," a night and a day "gang."

nor food. The whole of their wages would not purchase the food used in an American family of working-people.

Because the Waldhof company is a model establishment, the dwellings are of a much better order than one usually finds connected with such establishments in other parts of the country.

Three hundred and forty dwellings give lodging to the 1,800 inhabitants. These dwellings are well appointed and so arranged that each family has its apartments entirely separate and distinct from every other family. These dwellings are for the most part very simple, yet very convenient and very comfortable. A piece of land (a flower and vegetable garden) is attached to each dwelling; also a stable, in which a cow or a couple of goats may be kept. These dwellings are cared for, repaired, &c., by the company's workmen and at the company's expense, and are given to the people rent free.

GROCERIES AND PROVISIONS.

The Waldhof company have established grocery and provision stores in which the people can purchase all the necessaries of life at cost prices, *i. e.*, at only such an advance on cost prices as is sufficient to cover the wages of the men employed in the stores. The very best grade of goods are sold, the directors, superintendent, and overseers purchasing their household goods at the same store as the humblest workman. Purchasing large quantities, the company get them good and at bottom prices. Dealers find it to their interest to furnish the best from fear of losing such a good customer as this company is. The meat and provisions are of prime quality. If at the end of a month a balance is found on hand at the company's store after the wages are paid to the workman, a reduction takes place in all articles until the surplus is worked off into the hands of the people. The company will not take one copper of profit out of the stores.

THE SCHOOLS.

The public schools are conducted in a manner most admirable. Children *must* go to school until they are 15 years of age. It is very amusing at times to find groups of children speaking French and German alternately. Libraries of excellent books are provided for the amusement and instruction of the "help" who desire to read.

The "colony," originally French, is becoming, day by day, more and more German. Of course the old people still speak French. It is not unusual to find three generations working side by side—grandfather, father, and son. The place selected lies in the Neckarthal or valley, famous for its wine and corn. There is, perhaps, no more healthy spot in South Germany. There is a hospital, however, in the village, presided over by the gentle Sisters of Charity, whose untiring care of the sick sometimes effects cures where doctors had given up hope. These good ladies are also supported by this model company. Need I say that these people seem, nay, are, very happy, very contented? They are. They never think of emigrating.

Cost of some of the necessaries of life at M[illegible]

oranges, 40 cents per dozen; asparagus, 50, 60, and 70 cents per bunch (a pound); potatoes, 1 cent per pound; salmon, 69 cents per pound; common fish, 10 cents per pound; figs, 23 cents; raisins, 46 cents per pound, and upwards; currants, 23 cents. I give these prices just as they were returned to me by parties sent out to take notes. These are the articles used in American workingmen's families; they are the things used in ordinary life, not of course in all cases and places, but as a rule in prosperous manufacturing villages. Here they are among the workingmen's luxuries. I am now speaking of my district in general.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, May 20, 1887.

GERMAN COTTON AND GLASS INDUSTRIES.

REPORT OF CONSUL MONAGHAN.

I spent a day at Oggersheim in the Pfalz or Palatinate, for the purpose of ascertaining, if possible, how a cotton-manufacturing concern could draw raw cotton out of the United States via Liverpool, card, spin, weave, dye, and finish it into cloth, transship it to the United States, pay duty, freight, commission, &c., and still make money.

The Oggersheim company employ 600 hands, and have two engines, a new one of 560 horse-power and as a reserve an old one of about 240 horse-power. The driving power is transmitted to the main shaft from the engine by means of thick, heavy, hemp ropes running over grooved wheels. To my question "Why hemp ropes and grooved wheels?" I received the answer, "Because, if one of the strands breaks, it can be removed, and work continued until night, when a new strand can be adjusted. Were the driving power a flat leather belt the mill would have to stop working for half a day if it broke. Then, besides," added my informant, "the hemp ropes are only half as dear as a leather belt would be."

Manila is most frequently used in making these ropes.

HOURS OF LABOR.

The help go in to work at 6 o'clock in the morning; get out for breakfast from half-past 8 to 9; have one hour for dinner, from 12 to 1; a half hour for lunch and fresh air, from half-past 4 to 5; and quit work at 7 p. m. Thus they spend eleven hours at constant work. The division of the day's toil in the manner described above results both in the health and spirits of

exceptional and only made in the case of a first-class mule-spinner. A mule-spinner's first and second helpers get 50 cents a day. The three men run one pair of mules, English make, of 840 spindles. The directors acknowledged that workingmen and women of the same grade in America were paid much better.

MACHINES USED.

Most of the machinery used, or at least a very large part, is of English make.

During the last year many old machines were taken out and replaced by new ones of the latest and most approved English make. I noticed a great many of Platt's machines, from Oldham, England.

THE GOODS MANUFACTURED.

This company makes, besides shirtings and ordinary cotton goods, a great quantity of cotton velvets, corduroys, and jeans. These are exported in large quantities to France, Italy, Austria, and the United States; to the latter country, cotton velvets especially.

The nap on the cotton velvet is all cut by hand. The cotton velvet sells for 28, 36, 43, and 47 cents per meter. It was noticed in the singeing-rooms that the velvet was drawn from ten to a dozen times, by rolls turned by hand, over the red-hot iron cylinders, such as are usually used in the singeing-rooms connected with dyeing establishments.

A method by which the dampness required for successful spinning is obtained may be of interest to American spinners. The method of projecting steam into the room, prevalent in American cotton-mills, may not have the merits of the system employed at Oggersheim. Here water-pipes lead up to a box-like arrangement which hangs from the ceiling. Taking a ladder and climbing to this arrangement, I found a stream of water projected forcibly from a pipe, turning a fan-like or windmill-wheel-like apparatus, the water discharging itself into a basin or large saucer-like receiver. Jets of water thrown against the fans of this rapidly revolving wheel are converted into vapor, which is projected through wooden openings in all directions. This vapor, mingling with the air of the spinning-room, soon gives it the necessary dampness. Being placed above, the fans force cool, damp air into the hot air which rises, thus keeping up a constant circulation. One could not help noticing the entire absence of that close and disagreeable smell that forever haunts the precincts inside and even outside of New England cotton-mills. The system of ventilation is almost perfect. This, with the happy arrangement of the working hours, accounts for the red cheeks and rugged appearance of the help. In this connection it is only fair to add that "hot biscuits, pies, and highly seasoned pastries," so common with cotton-factory operatives in the States, are unknown among the toilers here. Then, too, no such severe climatic changes are ever felt here as have made New England and a large part of the N[illegible]

In the event of cotton manufacture being extended in the Southern United States all exports of cotton goods over the ocean are expected to cease. Upon this point the opinion was expressed that the Southern States were much better adapted to the manufacture of cotton than the Northern in many ways: (1) The climate was in its favor. (2) It would not be so drastic on the help, because large stone mills would offer much cooler and pleasanter places to work in than the open field under a Southern sun.

The advantages of saving the expense of baling, freighting, shipping, transshipping, &c., were pointed out in such a manner as to leave no doubt that with the growth of the cotton-textile industry in the South, the days of export of those materials from England and the Continent are numbered.

PRICES OF COTTON GOODS ON THE MANNHEIM MARKET.

Sheeting, double width, 23 to 33 cents per meter (39 inches); shirtings from 12 to 22 cents; half cotton, half linen, 42 cents per meter; colored cotton, 15 to 16 cents per meter; cotton cloth used for toweling, 16 to 17 cents; finished cotton towels, $3; shirts, ready made, $11; dozen pairs ladies' cotton stockings, $3.75 to $4; dozen pairs men's socks, $3; cotton underclothes, $1.30 and $1 a suit; a cotton tablecloth with 6 cotton napkins from $1.25 to $7.25.

For the purpose of comparison I add the prices of linen goods: A meter of linen from 30 to 95 cents; sheetings from 41 to 51 cents; dozen linen handkerchiefs from $1 to $4.25; dozen shirts from $24 to $12; dozen collars from $2.75 to $1.

CUSTOMS DUTIES ON COTTON IMPORTED INTO THE GERMAN EMPIRE.

Raw cotton, carded, combed, and colored, in the raw state	Free.
Cotton wadding	$0.357
Cotton yarn, mixed or unmixed:	
Single thread:	
Nos. 1 to 17 (English measure)	2.85
Nos. 17 to 45	4.28
Nos. 45 to 60	5.71
Nos. 60 to 79	7.14
Above 79	8.56
Double threads:	
Nos. 1 to 17	3.57
Nos. 17 to 45	4.998
Nos. 45 to 60	6.43
Nos. 60 to 79	7.85
Above 79	9.28
Single or double threads, bleached or colored:	
Nos. 1 to 17	5.71
Nos. 17 to 45	7.14
Nos. 45 to 60	8.56
Nos. 60 to 79	9.98
Above 79	11.42
Three and more threaded yarn, once or more twisted, raw, bleached, colored	11.42
[illegible] spun yarn, raw, bleached, colored, prepared for	16.66

RECEIPT OF WORKINGMAN'S EXPENSES FOR FOOD.

The following table refers to a receipt which appears in a workingman's cook-book published in Elberfeld. This book has found great favor among manufacturers. This receipt is intended to cover the needs of four grown persons. The expenses are 2.81 marks, or about 67 cents.

Day.	Articles.	Quantity.	Cost per article.	Total cost.
		Pounds.	*Pfennigs.*	*Pfennigs.*
Sunday	Sauerkraut	3	9	44
	Potatoes	3	15	
	Bacon	¼	20	
	Peas in soup	½	25	
Monday	Potatoes	6	18	47
	Fresh pigs' bones	1	4	
	Barley in soup	½	10	
Tuesday	Potatoes	6	18	35
	Sausage broth or buttermilk	.....	7	
	White beans in soup	1½	24	
Wednesday	Potatoes	5	15	43
	Oil and onions	.....	4	
	Potatoes	7	21	
Thursday	Onion sauce, with oil	.....	4	45
	Panhas	1½	20	
	Potatoes in soup	4	12	
Friday	Wheat meal in a pancake	1	20	39
	Fat (lard) for soup, and cooking-oil	.....	7	
	Rice in soup	½	9	
Saturday	Potatoes	5	15	28
	Sausage broth	*1	4	

*Quart.

This makes a total of 67 cents. A mark equals 23 cents 8 mills ($0.238).

It is not to be supposed that many of the workingmen do not have better food than the above table provides; but it can be safely asserted that the living of the German working classes is very simple and can in no way compare with that of the same classes in any part of the United States. The economy with which they prepare and get the most out of food is born of necessity. Having written so often about their preparation of food, I need only mention here that stews prevail among the Germans where "fries" prevail among the toilers of America.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, May 11, 1887.

JEWELRY WORKS OF PFORZHEIM.

REPORT OF CONSUL MONAGHAN.

With a view to ascertaining in what way, if any, German jewelers excel those of the United States, I visited the famous old city of

in excellence of finish; the methods of production being very similar, except that the German has this advantage, that he is provided with a very excellent "Gewerbe" or technical school, in which children intended for employment in the jewelry shops receive a very thorough theoretical training long before they see the inside of a factory. These schools are presided over by skilled professors. Designing, drawing, practical chemistry, and enough metallurgy to be of use to the pupils in their work are taught in these schools. Even after the boy or girl leaves the school and goes to work in the factory, he or she is allowed to take an advanced course evenings in the school.

Oftentimes men, young and old, are found taking special courses.

In the workshop an excellent system prevails. It is this: instead of each workman being placed at a bench with the wall in front of him, as with us in America, the help are gathered in clusters around large benches peculiarly arranged, thus: Now, at this bench will sit one or two skilled workmen with young lads around them under their direction. The advantage of this, apparent at once to any foreman of a jewelry shop, is to reduce loss and waste to a minimum, besides the advantage of having the apprentices learn more rapidly from watching the older hands. Then the skilled workman, compelled every time he raises his eyes to see what the learners are doing, detects in a moment the slightest fault. The above rough diagram will serve to give an idea of the bench's form.

The soldering, scraping, polishing, &c., is done about in the same way as our workmen do it, with this difference, that girls here do the polishing at from 35 to 50 cents per day, while with us a man (girls seldom if ever polish) commands, and usually gets, $2.75 to $3.50 per day.

The polishing-machines here seemed cleaner than ours, the girls being well protected from the flying crocus. The stampers and presses are run about as ours are run, though I could not help noticing that a pressman with us would turn off twice as much work in an hour as a pressman here. Each establishment employs its own designers and die-sinkers, thus reducing expenses, at the very outset, to much below those of an American shop, where the designs are many times bought from specialists and the dies are sunk outside. In one shop, where I saw 5,000 dies of 5,000 different patterns, the average price per die was $1. My impression is that the average price of such a collection in Providence or Attleboro would be $10. In this difference of cost may be found one of the many advantages of the technical schools. I may state here that instruction in the schools is as good as free; the manufacturers paying $2 a year for pupils whom they intend to employ. An apprentice must serve five years before being admitted into the ranks of the skilled workmen; he gets 50 cents a week the first year, $1 a week the second, $1.50 the third, and so on until his five years are up. Everywhere I went I heard complaints of manufacturers that trade was lost to them in the United States because hundreds of skilled workmen went to New [illegible] and made as good goods as they

of the plate is very similar to the methods prevailing in America. Thick copper or silver plates are prepared with a perfectly smooth, regular surface. French louis d'ors are cut up and melted down, run off into plates, rubbed, filed, and rolled out to the size of the receiving plate, attached to the same by means of some specially prepared, secret, chemical preparation, put in clamps, and then put into a very hot fire of charcoal. Here, under the trained eye of the furnace watcher, it remains until little excrescences, or bubblings along the line of juncture indicate that it is "done," when it is taken out and left to cool; after which the gold and silver, now "made one," is rolled between rolls, grading from ponderous heavy ones to comparatively light ones. What came out of the furnace a thick piece of combination metal, leaves the last rolls a thin, long, smoky-like string of plate 50 to 75 feet in length. This is then tempered over flaming gas-jets, or annealed, rather; after which it is rubbed, cut into strips, and sent to the stampers, where it is pressed into various designs; is then cut and trimmed, and after various manipulations comes into the salesroom ready for the world's market. Just at present there seems to be a very active trade springing up in this class of goods. Besides the plated ware, I found the more advanced shops employing batteries for the production of electro-plated ware. One thing pleased me more than any other, and that was to see machines take a long, flat strip of plate, pull it through a hole in such a manner as to turn out a hollow gold plate wire, the gold on the outside and the joining line invisible, no solder being used. I never saw any to equal it in America; true, our workmen turn the wire out, but it is soldered, if I am rightly informed; besides, the directors here seemed to speak with considerable pride as they showed me this triumph of mechanical skill. Look as closely as I would, the seam was invisible. To secure excellent finish the concealment of the seam is very much desired. I found one shop busy turning out thousands of "images," bronze plate busts of England's Queen Victoria, the Kaiser, the Crown Prince, von Moltke, and Bismarck. The skill with which these were finished was very fine. The director claimed to have some process by which he secured the best results when he could get a fine terra-cotta "image." I was unable to learn as much as I desired of this interesting process.

Everywhere I went, I must state, I was treated very courteously, that is, wherever I was allowed admission. In one or two places I found huge hydraulic presses used in pressing the plate together either before going into or after coming out of the furnace.

THE MARKETS.

The markets of the world are supplied from this quaint little city situated among Baden's hills at the junction of three rivers, the Enz, the Wurm, and the Nagold.

Thousands of dollars' worth of jewelry with the pretentious name of "Parisian" had its origin in this humble and unpretending city. It was instructive as well as pleasant to go through the sample-room of the largest concern and see the goods destined for the adornment of the people and tribes of all the earth. One need hardly be told that certain boxes

carried on with Mexico and the whole South American continent. It was an interesting supplement to a study in ethnology to study the different designs intended to meet the tastes of people at so many different parts of the earth. Here as in so many branches the tireless and enterprising Teuton has agencies everywhere. I heard many complaints about trade with the States being cut off by our "tariff." I have no doubt that a reduction of rates 10 or 15 per cent. would result in flooding our market and stimulating the German trade. What the results would be ultimately I am not able to determine. Unlike our jewelry centers, the Pforzheimers have work all the year round. This is in a large part due to the extensive market enjoyed. We should study the tastes of South American and Oriental peoples and market our goods among them. American work seems to me to excel in perfection of detail and grace of finish.

SUPERVISION.

The goods, at least the "plate," must be what they pretend to be. A man runs a great risk who sells No. 80 or 60 plate for No. 40 or 30. There are test places under governmental control. I could not help noticing the democratic spirit prevailing among all classes of help and employers; a friendly smile on the face of the directors as we approached the benches of the workmen was always answered by a happy smile and a cheerful nod by "all hands." A happy and just spirit of emulation exists among all the workmen. A boy with skill, no matter how poor, finds in Pforzheim a thousand friends to help him to the highest and fullest development. As in all branches of labor in Germany, the wages paid in no way equal those paid to the same class of help in the United States. Nevertheless, if asked what opportunity we have to open trade in South America to compete with German goods, I should unhesitatingly declare in favor of a trial, with firm belief in success. I could not help feeling gratified at hearing the very best opinions expressed in regard to American products in this class of goods, nor was I less happy when told that some of their best workmen go to the United States, enticed by the better wages and increased opportunity to "get somewhere in the world."

I may be pardoned for referring again to the matter of skilled workmen and their apprentices. In all branches, die sinking and cutting, as well as in putting the jewelry together, the skilled workmen sit at grooved benches with three or four "'prentices" near them. Knowing what immense losses occur in all branches of the jewelry trade from "abortions," or bad work from learners, I cannot help pointing out as forcibly as possible a method that seemed to combine so much of advantage with so little of loss as that which I saw at Pforzheim. Bad work is almost impossible while the skill of the old workmen is transmitted from hour to hour and from day to day [illegible] are to come after them, as skilled workmen, to sustain [illegible]heim rich and famous in two con-

THE TARIFF QUESTION IN HOLLAND.

REPORT OF CONSUL ECKSTEIN.

The Association of Manufacturers of the Netherlands (*Vereeniging van en voor Nederlandsche Industrieelen*) has recently inaugurated a movement for the object of influencing the Government and the States-General in favor of speedy legislation upon the subject of the tariff on imports and for the purpose of "protection" to home industries.

Towards the accomplishment of these ends the above-named organization has issued "a public notice" (*oproeping*) calling therein attention to the defects in the existing tariff, ascribed thereto the now prevailing unsatisfactory condition of most all of the industries of the country, and whereby it is proposed that at an early day and at some centrally located place a large meeting be held, consisting of all such persons as sympathize with the movement, and for devising the necessary steps to be taken to make it successful.

A translated copy of this "call" or "public notice" is herewith inclosed for the information of the Department, or for any such use as, in its judgment, it might possibly be made to serve the interests of certain classes of our people.

I refrain from expressing any opinion upon the situation and circumstances which purport to have led to the action of the above-named "association" or comment in any way upon the contents of the "call" it has issued.

At the same time I would observe, if permitted to speak figuratively, that the "high tariff" or "protection fever" which has been and still is raging in the neighboring countries of France, Belgium, and Germany, threatens the spread of contagion from over the southern and eastern borders into Holland, and it remains to be seen whether it will become epidemic in this country to the extent of demanding and producing governmental and legislative action.

DAVID ECKSTEIN,
Consul.

AMSTERDAM, *May* 23, 1887.

IN BATTLE ARRAY.

The national industry lives in a most difficult time.

It seems that the last period of the battle for life has appeared for many of its branches.

Others shall not escape a similar fate, hanging over their heads.

Foreign competition, steeled by protection, equipped and encouraged to a decisive battle for the overpowering of a market for the world, even appears to drive aside the most natural productions of the native industry, even as it was the case these last forty years, with velvet and silk, with window and looking glass. with pins and needles, with guns and swords, with springs, axes, and wheels, with paper

trade ideas, but which were first brought into practice when it was sure of its supremacy in many branches of industry.

We are not surprised at this turn of events. When it was still time to take preventive measures, we have tried and tried again everything in our power. A great majority has met, if not worse, with a compassionate shrug of the shoulders.

The only thing now still left us to try, is to knock at the door of our friends and votaries for the free-trade school, and though it be at the eleventh hour, to combine with them in obtaining as soon as possible the application of those measures which the celebrated men of 1850 left in the hands of the head of the state to decree, even without further concurrence of the States-General, for the preservation of our own industry, if it unexpectedly might even appear that the commercial laws of other states were changed to the injury of the Netherlands.

The facts which our Government and legislation of 1845–1850 foresaw as possible are now existing.

The industry of the Netherlands is menaced with a total ruin by their oppression. It is therefore of the utmost importance to bring those means in practice which the legislation then reserved.

May we hope for any success, ere it be too late for many, then we cannot tarry any longer; not much talking, but manly, courageous, and, above all, unanimous deeds are requisite.

We therefore propose a great general meeting, to be held in the center of the country, date and place to be fixed at a later period.

We will take the charge of preparing everything requisite for such a meeting.

We only request those who are of our opinion that, on the part of all promoters of our native industry, steps should now be taken in the indicated direction with the legislation and States-General, so that nobody may have to repent by our negligence; to show their assent by sending a postal card before the 23d of this month.

The board of the association of and for manufacturers of the Netherlands.

EM. ROECHLIN, *President.*

DR. C. C. E. D'ENGELBRONNER, *Secretary.*

THE HAGUE, *May* 10, 1887.

SUPPLEMENTARY REPORT OF CONSUL ECKSTEIN.

I transmit herewith a translation of an extract from a circular issued by the Association of Flour Manufacturers of the Netherlands, inviting all manufacturers of the country to be present at a meeting to be held at Utrecht, on the 16th of next month, to consult as to the means necessary to be employed to save the industries of this country from decline or ruin which, according to the statements of the said organization, threatens them.

DAVID ECKSTEIN,
Consul.

AMSTERDAM, *May* 24, 1887.

[Translation.]

The Netherlands Association of Millers has issued a circular directed to the manufacturers of the country, inviting them to a meeting to be held on the 16th proximo in the building for arts and sciences at Utrecht.

The administration of the said association calls attention to the following:

It is not only the flour-milling industry that is found in so embarrassing a condition.

It is well known that very nearly the entire industry of the Netherlands is seri-

of the trade policy which is being pursued by for-

lets is

For the convenience of participants in this exchange of views, the following stated questions will be placed before them, and which they are expected to answer in writing:

(1) What articles are being produced by your industry?
(2) What is the number of factories in this country engaged in your industry?
(3) What is the number of workmen?
(4) What is their average pay per week?
(5) What is the value of the yearly production?
(6) At how much do you estimate the capital invested in the buildings and equipments of the factories?
(7) At how much do you estimate the entire working capital?
(8) Is your industry engaged in working for the home or foreign markets?
(9) If for foreign markets, whither go your exports?
(10) Is your industry hindered in carrying on the export trade? and if so, since when, and in consequence of which foreign laws?
(11) Which countries are in our markets your principal competitors?
(12) Is competition supported by any laws in foreign countries? If so, which are they?
(13) Can your industry maintain or assert itself, notwithstanding the protection enjoyed by your competitors abroad?
(14) If not, what Government action or measures do you consider required in defense of your industry?
(15) Do you believe the levying of duties on imports necessary? and if so, to what amount?

EMIGRATION FROM GREECE TO THE UNITED STATES.

REPORT OF CONSUL MOFFETT.

Within the past few weeks many applications have been made to me for transportation to the United States by intending Greek emigrants. The persons applying for aid or information are young men, not mechanics, or agriculturists, and tell the same story, viz: "We have been told of a great demand in America for Greek laborers; that money is to be had in abundance, and that the American Government will furnish transportation." To my surprise I learned on inquiry that many had actually gone to the United States with such views, having obtained the necessary funds by borrowing or by selling or mortgaging what few possessions they may have had. I have tried in vain to discover the source of their delusion. The Greek consul-general in New York has given full and timely warning, and the Greek newspapers have given publicity to his words, but still the emigration goes on, and is likely to increase.

I do all I can to undeceive these people, and to let them know the truth, but I see only one here and there, and, speaking to them through an interpreter, find it difficult to get them to understand. Then I am told that the runners of the emigration lines, knowing that no encouragement will be given, try to keep their victims from applying at the consulate. As a class there could hardly be more undesirable emigrants. They go without means, or with barely enough to land them in New York. They are not skilled workmen, and have no purpose whatever to settle down and become citizens. For the most part they are dirty, and are ready to live like dogs, and their hope is to save up in a few years what to them will seem a fortune, and then return to their homes and live on the interest of their

than 20 years, his perfect command of their language, and his personal popularity, all qualify him to speak with confidence, and entitle his opinions to the utmost respect. I would call special attention to the suggestion offered in regard to passports, which appears to me to be of great value, not alone for Greece, but for the whole stream of European emigration. It seems to me that consular supervision offers an immediate and ready check on undesirable emigration, the emigration of that class which goes to crowd our charitable and penal institutions. The consul can always obtain information in regard to the status of the intending emigration, which would be of very great value, and here in Greece the application of such supervision is easy. No Greek can leave the country without being provided with a passport,and all that would be needed is the requirement that passports of intending emigrants for America shall have the visé of the American consul. Mr. McDowall's suggestions on this point seem to me to be worthy of special consideration.

WM. H. MOFFETT,
Consul.

UNITED STATES CONSULATE,
Athens, May 24, 1887.

EMIGRATION FROM PIRÆUS TO THE UNITED STATES.

BY CONSULAR AGENT McDOWALL.

Of late emigration from the Piræus to the United States has increased very considerably and appears to be still on the increase.

The emigrants passing through Piræus are principally from the province of Laconia, in the Peloponnesus. I estimate that three hundred persons, all males, have left this port during the past two months by French and Italian steamers for the United States.

No encouragement is given by the Greek Government to the exodus of the people of one of the most sparsely populated provinces of this country; in fact, the Government rather discourages emigration, although no obstacles are put in the way of those desirous to leave. The Greek press, on the other hand, sends up a wail on the departure of every new batch. The dissuasions of the press are founded on reports from the Greek consul at New York on the sufferings and hardships of Greek emigrants landed there destitute, or almost so, last winter. Nevertheless, the stream of emigration continues and increases as the summer advances.

I have endeavored to find the cause for this emigration, and on questioning the emigrants have invariably received as reply: "The chance of bettering our position." There being no work for them in their native villages, they leave their women and children to plant sufficient corn, &c., for their sustenance while they are away trying to make a little money.

The emigrants from Greece are neither agriculturists nor tradesmen, and on reaching the United States settle down in large centers like New York, Chicago, &c., and commence petty trading—selling cigars, flowers, sweets, &c., on the streets, or keeping lodging and boarding houses for seamen, and small dram shops, &c. Doubtless many of them are honest, toiling people in their line, and others are simply [illegible] at large. They are all very careful about money, and will live on [illegible] money to put out at interest (or usury) in [illegible] return and live on;

Seeing they are all bound to be provided with a Greek passport before they can leave the country, I think it would be a good thing if they had to present themselves at the consulate for a visé to their passports, which would afford opportunity for close examination as to their antecedent, condition whether paupers, criminals, or provided with means, and to what extent; also whether they had friends or relatives settled in the United States, and if so, get the names and addresses of such relatives. A record of the information thus obtained to be kept and copies sent to the Department of State and collector of the port of entry, who would thus be advised, previous to arrival at his port, of the condition and social status, &c., of the emigrants.

The majority of the emigrants from Greece cross the Atlantic in Italian and French steamers, sailing from Palermo and Marseilles; the branch steamers of these lines taking them from Piræus to those central ports.

A. C. McDOWALL,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Piræus, May 10, 1887.

PROTECTION OF INVENTIONS IN SWITZERLAND.

REPORT OF CONSUL GIFFORD.

The Swiss people adopted on the 10th instant an amendment to the Federal constitution by which the power to legislate in regard to patents is conferred with certain restrictions on the General Government. As is well known, Switzerland does not at present afford any protection to inventors, having hitherto combated, both in theory and practice, the ideas which prevail in most other civilized countries on this subject. The change contemplated but not assured by the amendment is the result of an agitation which began many years ago. In 1882 an amendment similar to the present one was submitted to the people, but was defeated by a large majority. Several branches of industry, notably those occupied with the production of textiles and paints and colors, vigorously opposed the protection of inventions, holding that any general patent law would be detrimental to their interests. But the question was further discussed in the newspapers, among the people, and in the Federal Council and legislative bodies with that thoroughness which is characteristic of the Swiss people.

The result was the adoption of the new amendment by a vote of 192,000 to 57,000. To secure this result, however, it has been necessary to make large concessions to the opposing interests. Textiles, dyes, and paints cannot be included in the proposed legislation. Moreover, the patent law to be framed in conformity with the amended constitution must only provide for the protection of important inventions, to the exclusion of trifling improvements and inconsiderable novelties. In short, it is proposed to give the patent office as little to do as possible, and to restrict the expenses and the number of employés to a minimum.

The task of the Federal Government in framing a law conforming to the constitution will be no light one. And, once framed and adopted by the legislative bodies, such a law will not go into ef-

constitution the people will reject the law when it comes before them. It is even said that the recent partial success of the friends of the patent system was due rather to the negligence of the opposing party and a consequent light vote than to any change in the opinions of a majority of the people, the general feeling having been that there was no danger of a reversal of the verdict of 1882.

The result will have a certain importance for inventors and owners of patents of mechanical contrivances in the United States. They are now wholly without security in this country, while the new legislation, even if as rigorously restricted as proposed, would give them protection for those inventions and improvements which are most frequent and most important in America.

GEORGE GIFFORD,
Consul.

UNITED STATES CONSULATE,
Basle, July 24, 1887.

THE MINING INDUSTRY OF LIEGE.

REPORT OF CONSUL PRESTON.

The year 1886 was a most disastrous one for the coal-mining industry of Liege. The owners or managers of the mines could not keep on with their production without making new concessions to the workmen, and at the same time prices of coal sunk lower than ever before. Wages had as yet suffered but a small reduction in consequence of the lowering of the prices of coal, when, at the end of March, the riots broke out among the men, which caused so much trouble in the country.

The disorders which have occurred show the fatal influence exerted by socialist and anarchist teachings on the thinking working population. The disorders have been suppressed, but the agitation continues, kept up by an active propaganda, the success of which is more manifest every day.

The dangers of the situation are great, as the country needs all its forces in order to compete with other nations which are richer in minerals and are less exhausted.

The Government has understood the situation and has confided to a commission the study and the elaboration of laws destined to improve the condition of the working classes. It is, therefore, hoped that some wise, generous, and liberal measures will be adopted to bring content to the intelligent workingmen who see the necessity of economical and social order.

The Government has further (in order to render more direct and practical help to the laborers in these industries) consented to make [illegible] transportation of coal from the interior, which had the [illegible] great extent, the importation [illegible] mission to

It seems to be a necessity of the situation that in such a country wages should remain low, and it is particularly hard to avoid certain periods of depression, which cause discontent among the working classes.

The French and German coal miners are as well supplied with the most improved tools and machinery as the Belgian; they pursue the progress of the mining art with the same care and attention, and the only way to meet the situation seems to be to accord cheap transportation in order to enlarge the market. An effort is being made by the authorities in this direction, both by rail and by water. Evidently no industry can be a public charge, and the coal mines are not yet at this point. If they do not enrich their shareholders, they supply the means of living to a large number of workingmen, and thus contribute to the general welfare, and are a source of life to other industries. There are still coal miners who are rich enough to face all the difficulties, but many of them have had a hard struggle to support existence.

The year 1886 ended better than it began; towards the latter part of the year a movement manifested itself to render work more active, but has not yet exercised an influence sensibly affecting prices. The important orders for brass and old iron from the United States had quickly absorbed the stocks of the blast furnaces. The impulsion that ensued extended to the rolling-mills, and renewed the trade in the coke and coal industry. The table which follows shows the difference in the general situation between 1885 and 1886.

Items.	1885.	1886.	Differences 1886.
Total workmen	23,464	22,906	558—
Wages paid ..... francs..	20,725,720	19,849,600	876,120—
Mean annual wages	883	866	17—
Production ..... tons..	4,071,835	4,099,343	27,588+
Value ..... francs..	36,984,350	34,627,430	2,356,920—
Ordinary expenses ..... francs..	31,635,400	30,345,040	1,290,360—
Extraordinary expenses ..... do....	3,542,350	2,565,720	976,630—
Totals	35,177,750	32,910,760	2,266,990—
Mean average price per ton ..... francs..	9.08	8.45	0.63—
Mines that gain ..... number..	33	30	3—
Profit on mines that gain ..... francs..	3,120,850	2,938,070	182,780—
Mines that paid loss ..... number..	20	22	2+
Loss ..... francs..	1,314,250	1,221,400	92,850—
General result ..... do....	1,806,600	1,716,670	89,930—
Result ..... per ton..	0.443	0.419	0.024—

The gross production of the coal mines in 1886 was 4,099,343 tons; this is 27,508 tons more than in the year 1885, when the maximum of production was reached.

The more active demand of the last few months of the year permitted the disposal of a large part of the stocks, which amounted to 171,800 tons on the 1st of January, 1886, and was reduced to 119,299 tons on the 31st of December; the consumption of coals in the mines having been 239,685 tons. The sales amounted to 3,859,658 tons, which is 102,173 tons more than in 1885.

The following table shows the fluctuation in the production and quality of coals in 1885 and 1886, and the sales in those two years:

PRODUCTION.

Quality.	1885.			1886.		
	Fifth arrondissement.	Sixth arrondissement.	Province of Liege.	Fifth arrondissement.	Sixth arrondissement.	Province of Liege.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Coals:						
Poor	370,140	92,657	462,797	361,050	89,522	450,572
Medium	869,120	671,867	1,540,987	932,410	652,749	1,585,159
Prime	1,107,750	960,301	2,068,051	1,129,050	934,562	2,063,612
Totals	2,347,010	1,724,825	4,071,835	2,422,510	1,676,833	4,099,343

SALES.

Coals:						
Poor	339,315	85,416	424,731	340,500	83,304	423,804
Medium	795,390	640,116	1,435,506	857,880	622,440	1,480,320
Prime	996,510	900,738	1,897,248	1,062,910	892,624	1,955,534
Totals	2,131,215	1,626,270	3,757,485	2,261,290	1,598,368	3,859,658

On account of the mine Burton having been abandoned, the number of active mines in 1886 is reduced to 52. Among these, 30 have realized a profit of the sum total of 2,938,070 francs, while the other 22 have suffered a loss of about 1,221,400 francs. The general result is, therefore, a profit of 1,716,670 francs, which is 89,930 francs less than the previous year. Prices have not been as low for thirty years. The sum spent for preparing works and for the first establishments was in 1886 but 2,565,720 francs, about 1,000,000 francs less than the expenses of 1885. To find as low a figure we have to go back to 1864, when the production was not yet 2,221,000 tons, a little more than half of the production of to-day.

We give here the total sum of the expenses of the mines and the proportional cost per ton of producing the coal for the past five years:

Year.	Expenses of mines.	Cost of production.
	Francs.	*Francs.*
1882	4,979,170	1.24
1883	5,630,500	1.34
1884	3,896,900	0.96
1885	3,542,350	0.85
1886	2,565,720	0.62

The largest proportion of profit in the mines is on the left shore of the river Meuse, 1,318,120 francs, against 398,550 francs on the right. The difference may be attributed to the larger proportion of prime coals produced by the mines of the left shore; in fact, this large production was the cause of the low prices, as shown by the following

FABRICATION OF COKE.

The fabrication of coke in 1883 was 611,360 tons, and in 1885 was 489,539 tons. In 1886 it increased to 509,644 tons, in spite of a sensible diminution of the export to France. This unfavorable circumstance has been compensated for in the contracts which the Belgian coal miners made with the Grand Duchy, a syndicate of German owners having been formed to raise the price of coal in that market, and thus make the competition easier. This syndicate, however, had but an ephemeral existence.

The production of the manufactories has also been favored by the extension of the brass industry in Belgian Luxembourg, where there are at present four furnaces in active operation.

The following table shows the production of coke in the province of Liege for 1886:

Items.	Fifth arrondissement.	Sixth arrondissement.	Province of Liege.
Furnaces:			
Active ..... number..	296	1,048	1,344
Inactive ..... do....	240	451	691
Total	536	1,499	2,035
Number of workmen	150	437	587
Consumption of coal ..... tons..	202,640	500,995	703,635
Production of coke ..... do....	147,881	361,763	509,644
Mean value of coke per ton ..... francs..	11.67	12.86	12.52

The following table gives the exports of coal and coke direct to foreign countries from the province of Liege. The figures are given by the manufacturers themselves. In explanation of the table we state that in the recapitulation column the amount only of coal necessary to produce a ton of coke is taken, which is calculated at 70 per cent. The quantities given are tons.

Years.	France.		Germany.		Holland.		Switzerland.		Italy.		Over sea.		Total export of coal.	Proportion of export to production.
	Coal.	Coke.	Coal.	Coke.	Coal.	Coke.	Coal.	Coke.	Coal.	Coke.	Coal.	Coke.		
														P.ct.
1877	221,000	17,850	12,000	140,000	82,200	1,610	.....	60	....	....	12,100	.....	555,185	18.1
1878	273,300	85,750	11,400	79,170	87,400	1,700	.....	....	....	....	14,800	.....	625,000	19.6
1879	262,800	88,550	18,400	65,100	95,800	1,890	.....	....	....	....	.....	.....	599,200	18.2
1880	286,804	120,237	24,853	76,350	105,388	2,564	593	....	....	....	720	.....	708,196	19.8
881	340,863	108,640	49,085	101,988	91,879	1,280	7,400	....	....	....	1,550	.....	795,288	12.5
1882	305,079	159,018	32,120	92,937	85,493	2,740	7,360	....	170	....	2,670	350	811,019	21.9
1883	299 041	137,270	36,420	91,860	108,022	1,630	11,700	....	....	....	28,605	.....	813,445	19.4
1884	372,251	89,261	43,646	64,757	91,975	1,435	15,269	30	....	....	34,690	.....	780,050	20.7
1885	445,466	113,972	33,032	63,910	109,044	1,053	18,400	320	....	....	37,255	1,300	901,132	23.9
1886	427,257	83,705	39,735	82,838	109,695	830	30,790	....	....	....	48,731	2,500	898,884	23.6

As an interesting addition to the above report I give my translation of a table showing all the steam manufactories in the province of Liege.

The following table gives the number of men, women, and children employed in the coal mines of the province of Liege in the year 1886:

Items.	Fifth arrondissement.	Sixth arrondissement.	Province of Liege.
Workmen employed in the interior of the mines:			
Men	8,988	6,499	15,487
Women	76	119	195
Children under fifteen years of age:			
Boys	1,018	731	1,749
Girls	8	15	23
Total	10,090	7,264	17,454
Workmen employed on the surface:			
Men	2,290	1,384	3,674
Women	673	345	1,018
Children under thirteen years of age:			
Boys	270	137	407
Girls	265	88	353
Grand total	13,588	9,318	22,906

Steam machinery in the province of Liege, December 31, 1886.

[Surface of heat given in meters.]

t purpose used.	Judicial arrondissements.														The province of Liege.					Low-pressure apparatus.		Apparatus of foreign makers.	
	Liege.					Verviers.				Hery.					Motors.		Simple generators.	Active steam boilers.					
	Motors.		Simple generators.	Active steam boilers.		Motors.		Simple generators.	Active steam boilers.	Motors.		Simple generators.	Active steam boilers.										
	No.	Horse-power.	No.	No.	Surface of heat.	No.	Horse-power.	No.	No.	Surface of heat.	No.	Horse-power.	No.	No.	Surface of heat.	No.	Horse-power.	No.	No.	Surface of heat.	No.	Horse-power.	No.	Horse power.
ral works.																							
	102	11,614	....	323	17,968	5	231	....	17	999	8	120	....	13	309	115	11,965	....	353	19,276	..	.....	.....	.....
	62	11,578	....	129	6,443	3	241	....	5	244	5	97	....	3	108	70	11,916	....	137	6,795	..	....	3	88
	78	1,923	....	29	1,116	3	12	....	.....	.....	....	.....	....	....	.....	81	1,935	....	29	1,116	..	....	.....	.....
	232	2,805	....	51	1,831	4	11	....	.....	.....	5	10	....	....	.....	241	2,826	....	51	1,831	..	....	10	52
e-cutting	15	562	....	20	718	7	437	....	8	370	14	991	....	19	1,160	36	1,990	....	47	2,248	..	....	.....	.....
	8	152	....	8	244	....	.....	....	.....	.....	5	84	....	5	154	13	236	....	13	398	..	....	1	25
factories.																							
authorized by the January 29, 1863.]																							
anaged under the 810	455	14,441	....	355	18,143	15	270	1	15	467	49	893	....	54	1,642	519	15,604	1	424	20,252	1	30	27	1,204
	123	1,413	....	116	2,803	8	68	....	7	104	17	276	....	16	427	148	1,757	....	139	3,334	..	....	1	1
chinery and tools	173	1,871	....	139	3,373	46	539	....	43	704	5	29	....	5	66	224	2,439	....	187	4,143	..	....	12	101
s and foundries of	59	719	1	59	1,409	....	.....	....	.....	.....	....	.....	....	....	.....	59	719	1	59	1,409	..	....	4	15
s	15	259	....	22	690	....	.....	....	.....	.....	....	.....	....	....	.....	15	259	....	22	690	..	....	1	20
hemical products	.....	.....	....	1	42	1	2	....	1	3	....	.....	....	....	.....	1	2	....	2	45	..	....	.....	.....
ork of wood	31	232	....	33	470	17	137	....	17	212	6	53	....	7	115	54	422	....	57	797	..	....	1	8

Steam machinery in the province of Liege, December 31, 1886—Continued.

	Judicial arrondissements.												The province of Liege.				Low-pressure apparatus.		Apparatus of foreign makers.	
	Liege.				Verviers.				Hery.				Motors.		Simple generators.	Active steam boilers.				
	Motors.		Simple generators.	Active steam boilers.																
	No.	Horse-power.	No.	No.	Surface of heat.	No.	Horse-power.	No.	No.	Surface of heat.	No.	Horse-power.	No.	No.	No.	No.	Surface of heat.	No.	Horse-power.	No.	Horse-power.
Continued.																				
Iron and other	10	311	1	13	582	247	9,668	11	279	18,052	....	....	257	9,979	12	292	18,634	....	....	1	4
stamping of	7	312	....	8	424	1	6	....	1	9	....	....	8	318	....	9	433	....	....	2	45
	3	71	1	3	119	58	1,678	6	68	5,034	....	....	61	1,749	7	71	5,153	....	....	10	68
works	37	204	....	37	246	....	....	....	....	....	34	181	71	385	....	71	468	....	....	1	8
	48	972	....	54	1,606	12	227	....	13	449	14	209	74	1,408	....	84	2,528	....	....	2	10
	45	266	1	50	731	8	51	2	8	98	25	185	78	502	3	82	1,507	....	....	3	22
	57	722	....	37	2,567	....	....	....	....	....	100	1,267	157	1,989	1	113	9,070	....	....	1	51
ies	8	238	....	6	391	2	70	....	....	....	51	1,079	61	1,387	7	52	3,596	....	....	....	....
r	10	35	....	12	107	....	....	....	3	230	3	6	13	41	....	15	122	....	....	21	247
	252	2,765	23	213	5,368	49	487	6	46	1,079	37	362	338	3,614	29	293	7,247	....	....		
											3	34								7	21
												800								56	10,645
ands.											2	16	16	97	....	16	145	....	....		
s:	14	87	....	14	129	....	....	....	1	15	128	9,973	266	26,841	....	266	15,265	....	....		
	137	11,815	....	137	5,277	1	15	....	....	....	2	10	....	....	....	....	....	....	....		
											128	15,011	....	....	....	....	....	....	....		
	1,981	65,367	27	1,869	72,797	487	14,150	26	532	28,069	508	20,863	8	483	25,636	2,976	100,380	61	2,884	126,502	1	30	164	12,635

NORWEGIAN FISHERIES IN 1887.

REPORT OF CONSUL GADE.

Herewith is transmitted a report on last winter's cod fisheries of the different districts along the Norwegian coast.

The principal catch, that at Lofoten, commenced as usual in the middle of January, and the fish, being in good quantities on the grounds, an easy and abundant catch was generally anticipated; but unfortunately it was soon hindered by heavy gales, which continued nearly incessantly up to the middle of March, at which time only a very small quantity was brought ashore.

The prospects were then very gloomy, but thereafter the weather bettered a little and improved gradually up to the close of the season (10th April), when a quantity of 31,000,000 cod was reported to be the total return. Of this quantity 24,250,000 are cured (salted) for klipfish, and the other 6,750,000 dried for stockfish.

The other products of this catch are estimated at 9,500 barrels of steam-refined medicine oil, 16,600 barrels of other oils of inferior qualities, the product of 41,450 barrels of liver and 31,450 barrels of fish-roe, all at a total value of $1,350,000, this being nearly 15 per cent. below the average proceeds for the past ten years.

In consequence of the year by year increasingly sharp competition of the klipfish, principally by the French producers, and also of heavy losses sustained by our exporters of this main article, the prices in Lofoten from the commencement of the fishing season were lower than for several years past, and may be quoted at $2.80 for 100 cod (without heads and entrails), at a cost of $2.70 for a barrel of livers, and at $4.25 for a barrel of fish-roe. The fatness or quality of the fish is reported to be nearly equal to that of the two previous years, whereas the quantity of roe turned out to be proportionately smaller, owing to the fact that the greatest part of the fish were caught uncommonly late in the spawning season.

At the period when the whole fishing fleet this season was collected at Lofoten, there were 6,883 boats, with 28,700 men, employed, or pretty nearly the same as the two previous years, but the gross profit for each net fisher is for this season estimated only at $42, against $60.30 in 1886, and $47.50 in 1885.

Also on the banks in the southern districts of Romsdalen and Nindmire the cod came at the regular period, but on account of the continually stormy weather the catch in these parts turned out very poorly, showing proceeds of only 2,750,000, against 13,333,000 in 1886.

On the other hand, a rather unexpected and rich catch simultaneously took place in the immediate vicinity of this city, being estimated at nearly 3,000,000, which, however, were sold at very low prices.

According to the above-stated figures, the returns of all the Norwegian cod fisheries during the just finished season give a total

duced was 9,000,000 cod, of which more than 5,000,000 were dried for stockfish, besides 3,130 barrels of medicine oil and 4,780 barrels of liver for the other qualities. In 1886 the total return was put down at 6,000,000 fish.

During February and March a quantity of at least 180,000 barrels of the genuine winter herring, which, years past regularly came to these parts, were captured on the old grounds near Stavanger, but owing to the now decreased demand for this meager and inferior kind of herring the prices from the beginning went very low, and only 65,000 barrels were cured, whereof 40,000 barrels were exported to England partly smoked, but chiefly fresh laid in boracic acid, which method for preservation has proved to be serviceable for shorter periods, say three to four weeks in the winter. The remaining quantity was sold either for home consumption, or even for manure, at the nearest districts, the prices going down even below 1 krone (26½ cents) per barrel.

The sea was full of herring and nearly any quantity could be taken; but the article having no value at all, the fishing for this reason stopped by itself.

F. G. GADE,
Consul.

UNITED STATES CONSULATE,
Bergen, May 12, 1887.

MANUFACTURES AND AGRICULTURAL INTERESTS IN ROUEN.

REPORT OF CONSUL WILLIAMS.

COTTON.

Mr. Roudot, chairman of the permanent committee to investigate the state of the cotton industry of France, has recently published an interesting report, from which I venture to make a few extracts, in the hope that they may be of interest at home.

He writes that spinning has suffered from foreign competition and a falling market. The unexpected increase of the cotton production in the United States since the abolition of slavery is considered one of the most curious phenomena of the age.

Before this period a crop of 3,000,000 bales was the most which could be counted on. Then the surprise at discovering a crop of 6,500,000 in 1885 to 1886, increased from 5,642,000 in the previous year, and indicating, one year with another, an average increase of 16 per cent., can be readily imagined. In view of this increased production the cotton-spinners of America and England have conformed themselves to this new state of affairs by adding to and replacing their old machinery with new of the most approved pattern.

[illegible] 37,500,000 spindles; in 1886 43,000,000 [illegible] spindles has been

kilograms per year, and the importation of cotton yarn has not varied, and amounts to about 13,000,000 kilograms.

The old-fashioned spinning-mills (of which France can now furnish the best collection) still abound. They must prove profitless in spite of the utmost efforts to sustain them by a high protective tariff.

The newly erected mills have given a certain vitality to the trade, but are insufficient to control it. The reason of this is simple enough. These new mills require a great outlay of capital, and naturally a great distrust will arise regarding their ultimate success, whether after all these can successfully compete for any great length of time with the foreign progress.

The spindles of France cannot yet supply their looms; consequently foreign yarns must supply the deficiency. Cotton, unlike silk and wool, has had a constantly downward tendency throughout the year 1886, and this depression cannot be estimated at less than 10 per cent. compared with the year 1885.

The French market seems, however, to have obtained some new customers, and succeeded in clearing out its accumulated stock during the latter part of the year 1886.

This fact, in connection with the caution displayed by manufacturers, has tended to sustain prices during the present year, although they remain far from satisfactory.

Official report of the Chamber of Commerce of Elbeuf for the month of July on wool and woolen goods.]

WOOL.

France.—The French wool holds the price fixed in June. All, except some of the wool of Normandy and Brittany, has been sold.

Australia.—The London sales of June 7 closed July 14. Of 359,000 bales offered, 327,000 were taken, divided as follows:

	Bales.
England	160,000
The Continent	150,000
America	60,000

Prices were the same as in June. The market closed firm.

La Plata.—617 bales were sold at Havre, of which 450 were offered at public sale on July 20 and 21. Although the stock offered of Buenos Ayres was very fine, but few buyers were attracted. The fine wools brought the prices paid in May. Inferior quality of Montevideo were in very slight request. The stock is 6,140 bales.

At Anvers 1,742 bales were sold. The market had lost the firmness of the early days of June, and receded to the price paid in April. The next sales are fixed for August 17, and include 24,500 bales Plata and 11,000 Australian.

The stock consists of 40,250 bales.

Russia.—Market quiet. Stock 2,925 bales. The new clip is awaited. Combed and spun wool, market weak.

The manufacture of fancy cloth of combed wool is still brisk. Weaving by machinery and by hand has been active; spinners and dyers have had less to do. Black cloths have been in more demand. Government and military goods remain without any change.

Elbeuf has sent out during the month of July 484,148 kilograms, after deducting that which has been brought in; about 11,243 kilograms more than in the corresponding month of last year.

Wages are without change.

Fancy goods seem to meet with favor, and many manufacturers have received considerable orders for these goods.*

AGRICULTURE.

This section of France, extending over the entire consulate, from Rouen to Dunkirk, has been without rain for more than two months. In 1818 the rain did not fall for 94 days. In 1422 the drought continued into October. Already the usual sources of supply indicate that they cannot much longer be relied upon. The country assumes a very desolate appearance. It is true that the harvest of grain has been gathered under favorable circumstances, but this, too, was diminished by the cold spring weather. But the fields are literally scorched. The sowing of turnips, which usually follows the harvesting of rye, is indefinitely postponed.

The herbage of the fields and the trees of the forest have taken fire in many places, and everywhere are constantly watched. These losses as yet are not very material, but it is feared that the meadows will be seriously and permanently affected if this drought continues much longer. Cattle have been brought to market in large quantities, and these forced sales have resulted disastrously to the farmers, while the butchers have managed their part so well that no benefit has arisen to consumers.

All vegetables, although of poor quality, are sold at high prices. It certainly would appear that no more opportune time could arise for the favorable introduction of canned or otherwise preserved vegetables and fruit from America.

CHARLES P. WILLIAMS,
Consul.

UNITED STATES CONSULATE,
Rouen, France, August 11, 1887.

COMMERCE OF THE UNITED STATES WITH MARSEILLES.

REPORT OF CONSUL MASON.

The record of exports of merchandise from the port of Marseilles to the United States during the first six months of 1887 shows an important increase over the figures for the corresponding period of last

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manufacture on a more extended scale during the next season. Elbeuf and Louvius obtained a full share of the Government contracts allotted July 30, but at what are considered low figures.

At Roubaix "Belgian goods" for the English market are dull, while fancy cloths are in demand. There is but slight demand for thin, light-colored woolen fabrics. At present there is just enough to keep all the factories at work, but greater activity in the future is confidently expected.

At Fourmies the new styles are not offered or sought for, and but few transactions are noted during the last fifteen days of July, as the views of buyers and sellers do not agree.

In the department of Marne most of the manufacturers are satisfied; the exception of combed wool and the specialties of a few weavers. [illegible] taken than for several years past. [illegible] hold them can com-

year, and bears testimony not only to the general prosperity of American business, but the gradual recovery of Marseilles commerce from the lethargy and depression entailed by the visitations of cholera in 1884 and 1885. The comparison is as follows:

Total value of exports to the United States.

First six months of—	
1886	$812,377 10
1887	1,031,854 09
Increase	219,476 99

This notable increase has been due largely to the growing importation by American manufacturers of two raw materials, viz, crude glycerine and wools, the latter being largely of the third class, carpet grade.

In these two items the record presents the following comparison for the first six months:

Glycerine:	
1886	$793 10
1887	85,167 53
Increase	84,374 43
Wool:	
1886	238,825 94
1887	331,892 64
Increase	93,066 70

In respect to imports from the United States the most notable change has been in the receipts of wheat, which, by reason of the short French crop of last year, has been largely imported from all wheat-exporting countries, including the United States.

The following table shows (in quintals of 220 pounds) the wheat imports at Marseilles from each country during each of the first six months of 1886 and 1887, respectively:

Month.	United States.	Russia.	British India.	Algeria.	Turkey.	Roumania.	Other countries.	Total.
1886.								
January	2,783	185,572	19,683	93,278	31,262	30,715	322	363,615
February	6,029	300,331	79,121	104,237	27,769	13,253	508	531,248
March	14,376	99,633	104,772	65,004	21,876	8,484	1,513	315,658
April	11,916	30,494	44,425	56,225	2,036	1,860	1,247	148,203
May	26,460	20,253	43,369	59,295	2,761	228	496	152,862
June	60,152	139,868	174,806	68,460	24,336	3,274	970	471,866
Quintals	121,716	776,151	466,176	446,499	110,040	57,814	5,056	1,983,452
Bushels	445,480	2,840,713	1,706,204	1,634,186	402,746	211,600	18,505	7,259,434
1887.								
January	22,618	200,071	43,551	138,346	26,814	5,668	.....	437,068
February	39,083	133,490	72,504	110,790	44,266	1,946	1,723	403,802
March	39,856	137,085	84,871	70,899	83,174	1,554	1,940	419,379
April	34,784	136,578	24,914	62,113	50,579	8,805	3,094	320,867
May	47,588	33,076	27,011	66,443	25,142	3,071		

So that while the increased imports from all quarters amount to 323,705 quintals, the increase from the United States is 150,044 quintals, or nearly half the entire amount.

THE CROP OF 1887 AND PROSPECTS FOR IMPORTS.

The outlook for the wheat trade during the coming season is equally encouraging. Throughout Southeastern France the crop, although of good quality, is rather inferior in quantity to that of last year. Throughout the remainder of the country, say north of the latitude of Avignon, the yield is variable, abundant on heavy soils, but scanty on loose and open ones. On the whole, it is anticipated that the home crop will be below rather than above that of last year, when it reached about 100,000,000 hectoliters, leaving 20,000,000 hectoliters, or 58,560,000 bushels, to be supplied by importation. But during the whole of last season, British India, as the foregoing exhibit shows, was a heavy contributor to the wheat supply of Marseilles. This season there is a deficit of 28,600,000 bushels in the Indian wheat crop, and the exporting capacity of that formidable rival will be proportionately reduced. Russia has a fine crop and is already shipping heavily to Marseilles, but from all that can be seen, the United States will furnish a large part of the supply which would otherwise have come from India. The local stocks on hand throughout Southern France are much lighter than those of one year ago, so that when the present agitation in the American wheat market subsides and prices become fixed and steady it may be confidently expected that the exports in this direction will become more heavy and constant than those of any season in recent years.

FRANK H. MASON,
Consul.

UNITED STATES CONSULATE,
Marseilles, July 20, 1887.

RAILWAYS AND NEW RAILWAY REGULATIONS IN JAPAN.

REPORT OF CONSUL JERNIGAN.

The Government of Japan has recently issued a series of regulations on the subject of private railway enterprises. Before considering the more important provisions of these regulations, a brief synopsis of the history of railroads in Japan may be interesting, and for statistical information on the subject I am indebted to the London and China Express.

HISTORY.

[illegible] give the Japanese a practical [illegible] until 1870 that

1872. It is 18 miles long and cost 2,855,732 yen. The net traffic receipts, as far as ascertained, have been:

Year.	Traffic receipts.	Profit.
	Yen.	*Yen.*
1883	374,324	13—1
1884	356,122	12—4
1885 (nine months)	231,558	8—1

The second line was constructed in 1876, and runs between Hiogo and Kioto, via Osaka. It was the purpose of the Government, and is now, to connect by rail the new and old capitals, Tokio and Kioto, but this larger project yielded to the pressing demands of trade, which, originating at the great commercial center, Osaka, pointed out the necessity of a line from that city to the open port of Hiogo.

The civil war of 1876 (called the Satsuma rebellion) interrupted all railroad enterprises and it was not until 1880 that the line under consideration was completed from Kioto to Otsu, on the southeastern corner of Lake Biwa.

This line from Hiogo to Otsu is 58 miles long and cost 7 763,500 yen.

The net receipts as far as ascertained have been:

Year.	Traffic receipts.	Profit.
	Yen.	*Yen.*
1883	520,105	6—6
1884	388,322	5
1885 (six months)	212,045	2—7

Since 1880 there has been considerable activity in building and projecting railroads in Japan. In addition to the roads named, there are opened for trade the following: Tsuruga–Ogaki, 49 miles long, and costing 2,981,102 yen. Tokio–Mayebashi, 68 miles long, and costing 2,323,302 yen. Shinagawa–Akabane, 13 miles long. (Have not been able to learn the cost.) Omiya–Utsunomiya, 5 miles long and costing 502,216 yen, exclusive of bridges. Takasaki–Yokogawa, 18 miles long and costing 350,325 yen. Handa–Nagoya (including extension to Kiyosu), 30 miles long and costing (at present) 897,912 yen. Naoetsu–Sekiyama, 18 miles long and costing (at present) 237,497 yen.

The following lines are under construction or in contemplation: Between Ogaki and Kiyosu, about 10 miles; between Yokogawa and Sekiyama, about 80 miles; between Yokohama and Nagoya, about 120 miles; between Nagahama and Ishibashi, about 40 miles; between Utsunomiya and Sendai, about 150 miles; and between Sendai to the port of Shiogawa, 10 miles.

The tracts for all of these roads have been surveyed and the roads built by foreign mechanics and engineers, but on examining the list I find that American mechanics and engineers have been virtually ignored.

REGULATIONS.

The imperial ordinance entitled "Private Railway Regulations" contains forty-one articles, and might be termed by lawyers a misnomer. An examination of some of its articles will show that such a name would not be misapplied, for while the title of the ordinance implies that railroad enterprises might be undertaken by private individuals, it is clear that no such enterprises could flourish a day that did not have the full sanction of the Government.

The application for the construction of a road has to be made by no less than five persons, who shall jointly through the municipal government in the jurisdiction of which it is intended that the head office of such railway shall be situated, transmit to the central government, in the form of a petition for leave to establish the proposed railway company, such information as is necessary to explain the undertaking.

After the petition has been submitted, should it appear that the proposed undertaking will interfere with any existing railway, or that the local condition, &c., do not show any necessity for the construction of the new line, then the petition will not be granted; otherwise a charter authorizing the work of constructing the line and incorporating the company will be issued, after having received the approval of his Imperial Majesty.

If the charter should not be obtained, it will not be competent for the promoters to raise any of the capital by means of shares, or, in the name of the company, to commence the work of constructing the railway.

The work of railway must be begun within three months from the date of the charter, and finished within the time fixed by said charter. If an extension of time be desired, it must be made through the municipal government within two months, but such extension cannot amount to more than half the period originally fixed. The width of gauge, unless specially sanctioned to the contrary, shall be 3 feet 6 inches.

No company can alter its rules or methods of working without the sanction of the Government, and rules and rates of freight or charges for passengers must be fixed under, and all alteration or changes submitted to, the approval of the chief of the railway bureau, and so must all changes in the hours of starting and arriving, and the number of trains run, &c.

When a charter for a railroad is granted only for a special period, the Government shall have the right at the expiration of such period to buy up the line and its accessories, and the price at which such purchase shall be made shall be a price to be calculated from the average price of the shares during five years previous to the date of purchase.

[illegible] charter can be granted detailed plans and estimates [illegible] bureau and approved by the ex- [illegible] are re-

terprise to the inconvenience of completing the work of construction within three months from the date of the charter, with a possible extension of not more than a month and a half. The above compilations show that the purpose of the Government is to retain in theory, as well as practice, control of all the railroads in Japan.

AMERICAN STOCK.

Another subject of importance to American workshops is now claiming the attention of the press in Japan.

The *Jiji Shimpo*, an able and independent native journal, recently referred to the superior construction of American rolling stock and American workshops. Enlarging upon the subject in its relation to English workshops, the *Japan Mail*, an English journal, has the following to say:

American rolling stock has been employed in Australia, and as the results of the trial have practical interest for Japan we shall give them here:

In the "Minutes of Proceedings of the Institution of Civil Engineers" for July, 1886, we find an essay, read by Mr. R. Gordon, "On the economical construction and operation of railways in countries where small returns are expected, as exemplified by American practice." A discussion was taken upon this essay, and in the course of the discussion Mr. R. H. Burnett spoke as follows;

From his experience of the working of American and of English locomotives on the New South Wales Government railways, of which he had charge for several years as head of the locomotive department, American locomotives were much inferior, both in endurance and in economy in working, to English-made ones, notwithstanding that the American engines under his charge were constructed by one of the best-known makers in the United States, and might therefore be taken as representing the best American practice. Having had considerable practical experience, both in the making and the working of locomotives, he had no hesitation in saying that wherein American practice differed from English practice it was to the disadvantage of the efficiency and durability of the American engine.

T. R. JERNIGAN,
Consul.

UNITED STATES CONSULATE,
Osaka and Hiogo, Japan, June 14, 1887.

DEVELOPING AMERICAN TRADE WITH CHINA.

REPORT OF MINISTER DENBY.

It has long since been demonstrated that one of the chief impediments in the way of opening new branches of trade in the East was the ignorance in which our producers and manufacturers were of the needs and tastes of these remote countries, where foreign trade is centered in a few localities and in the hands of a very limited number of merchants whose operations are very frequently confined to a certain category of goods. Of course there are exceptions, and some foreign firms do a general import and export business, but I do not believe that their number is sufficiently great or their operations so extensive as to invalidate my remarks.

It cannot, furthermore, be expected that in a country like Chi

We already manufacture a number of articles especially for the China market, but the list of such goods might certainly be increased if our manufacturers were better acquainted with the wants of the market and could manufacture articles or patterns already adopted by the Chinese, and if they were in possession of such information as would enable them to regulate their prices so as to be able to compete with the native producers. I will only mention the article of hardware. Chinese hardware, though cheap, is of a very inferior quality, and it seems impossible that our manufacturers, if they knew the tastes of the Chinese, could not produce articles far superior in quality and at such low prices that they could easily compete with the native goods in the Chinese markets.

It is also an undoubted fact that among the natural products of such a vast country as China there must be many which would be useful and salable in America were their uses better known.

The importance of bringing the products and manufactures of remote countries under the eyes of home manufacturers and merchants has, for many years, been appreciated by some of the European powers which have commercial interests in the East, and they have made efforts to remedy this want.

At least twenty-five or thirty years ago the French Government found that the establishment at Paris of a permanent exposition of the products and manufactures of its remote colonies was highly advantageous to the development of trade.

More recently many of the consular officers of Germany have been collecting specimens of produce and manufactures of their districts, and also of the foreign manufactures for sale in the native markets, and forwarding them to different localities in the German Empire, there to be exposed to the public. Accompanying these samples the consuls have sent such detailed descriptions as might enable interested parties to ascertain if they could possibly compete advantageously with the native manufacturers on their own markets. Different chambers of commerce have defrayed the expenses of purchasing and forwarding these goods—expenses which I learn have never been considerable—and have provided room for their exhibition. The German Government has not been called upon to make any allowances or incur any expenses in accomplishing this result.

A short time ago Belgium adopted an analogous plan and has opened in one of its chief manufacturing centers an exposition of the produce and manufactures of the far East.

Last year the French syndicate, which has its headquarters at Tien-Tsin, opened at that place an exposition of French manufactures for the information of the Chinese, and I hear their plan has already borne fruit.

Some plan analogous to that followed by Germany might prove beneficial to the development of our trade with China. Our consular officers in China would, for their part, be well pleased to do [illegible] and give this further proof of their earnest [illegible] the United States.

[illegible]DENBY.

THE CHINESE GUILDS.

REPORT OF MINISTER DENBY.

I transmit herewith an article on Chinese guilds, a subject of great importance for the comprehension of commercial matters in China.

Prior to the treaty of Nanking of 1842, all communication with foreigners was had through the Co-hong Guild of Canton. Large sums were paid to the Imperial Government for the privilege of the foreign trade. Foreigners could not either officially or commercially communicate with the Chinese authorities except through some member of the Co-hong. The factories at Canton were owned by the Co-hong merchants. They were princely in their dealings. Instances are recorded in which one of them, Howqua, gave $1,000,000 to save Canton from bombardment, and again to pay the debts of a member of the Co-hong.

The treaty of Nanking opened up China to general foreign trade and the Co-hong was abolished. The spirit of monopoly was not, however, repressed. In 1858 the 14th article of the French treaty absolutely prohibited the formation of any privileged commercial society and all monopoly of trade. On the representation of a consul all such associations were to be dissolved; but the treaty has remained a dead letter.

In every city in China there are guilds, controlling arbitrarily every branch of business. Boycotting exists in the most oppressive manner. In the great cities there are numerous trades-unions, who regulate hours of labor, apprentices, strikes, and prices on the most approved American plan. Mercantile guilds have existed time out of mind.

In most cities (?) each province has its own guild. The guild protects its members against sectional prejudices, prevents litigation, and performs the usual functions of a chamber of commerce. Ningpo is a noted place for guilds. I have visited some of the guild halls, which are gorgeous and imposing. They are designed for an exchange, theatrical representations, shrines, and restaurants. The bankers, the silk and tea men, the dealers in lumber, in opium, and the druggists, all have guilds.

It is conceded that these guilds, though despotic, are not altogether harmful. They are held amenable to law, and are ordinarily reasonable in their dealings with foreigners. They administer justice and compel their members to act honestly. Trades-unions are very numerous. The Ningpo Fishmongers' Union has a reserve fund of $700,000, which is loaned at a low rate of interest. There are unions for blacksmiths, carpenters, wire drawers, silk weavers, millers, postal companies, and barbers.

The wages would be considered ridiculously low in America. For instance, a Wênchow tailor gets $5 per month and his food, which probably costs $1.50 more. For these wages he toils unceasingly

bids an employer from taking more than one apprentice at a time. He was bitten to death by 123 men, each one of whom bit him.

Labor-saving machines encounter violent opposition. Sheet brass, for manufacturing brass utensils, was taken to Canton, and to prevent a riot it had to be removed to Hong-Kong. Some sewing-machines for sewing felt shoes, imported from America, met the same fate.

Co-operative loan clubs are very common.

It has been stated by some writers that the Chinese lack the power of combining. Certainly this is not true as far as combination for commercial or mechanical purposes are concerned. Wherever they have made settlements in the East, they have speedily controlled and directed commercial operations. These guilds have been introduced into California and are very powerful.

Among agricultural laborers there seems to be no combination. Holdings are small and living is cheap. The laborer may save enough to become the proprietor of a small tract; he is conservative and contented; he is not weighed down by caste or feudal laws. If he is endowed with good mental qualities he may rise in the social scale; the examination hall is open to all, and success there insures advancement in the state.

CHARLES DENBY.

UNITED STATES LEGATION,
Peking, May 23, 1887.

[Inclosure in Mr. Denby's dispatch.]

[From the "Journal of the China Branch of the Royal Asiatic Society," March, 1887.]

CHINESE GUILDS OR CHAMBERS OF COMMERCE AND TRADES-UNIONS.

BY D. J. MACGOWAN, M. D.

The following cursory observations on Chinese guilds have been drawn up at the suggestion of Dr. Lührsen, formerly German consul-general, Shanghai, communicated to me by Count d'Arnoux, deputy commissioner of imperial maritime customs, Wênchow.

It is a subject of no inconsiderable importance, and has already received attention from commissioners of customs, consuls, sinologists, and publicists.* What follows is submitted merely as an additional contribution, in the hope that it may serve to elicit further inquiry; for until the administration of those institutions at each of the nineteen ports open to foreign trade is carefully made, this important feature in Chinese secular life can only be superficially studied.

Foreigners in China apply the term "guild" to two classes of institutions denominated *Wei-kuan* (club-houses) and *Kung-so* (public halls). *Wei-kuan* may be not inaptly compared to chambers of commerce, while *Kung-so* fairly represent trades

14; 1873, pp. 72, 110, 112, 119; 1881, pp. 5, Allen, esq., H. B. M's Vol. II, p.

The subject, therefore, is naturally divisible into two parts and under the following headings:

PART I.—MERCANTILE GUILDS.

Their origin.
Compatriot guilds—
of Ningpo.
of Pakhoi.
Guilds *vs.* local authorities.
General administration of guilds.
Guild halls.
Revenue.
Government; "boycotting."
Rules on credit and storage of goods.
Rules of weights and measures; closing and opening of the year.
Rules of tare; insurance; police.
Rules against fictitious buying and selling; charities.
Wênchow Druggists' Guild.
Fukien guilds at Ningpo: the Foochow, Amoy, and Hsing-hua.
Shantung guild of Ningpo.
Shanghai Tea Guild; Silk Guild.
Regulations, "boycotting," &c.
Ningpo Bankers' Guild.
Fictitious dealing in dollars.
Shanghai bankers' guilds.
Guilds and foreign merchants.
Collisions at Swatow, Hankow, and Ningpo.

PART II.—TRADES-UNIONS.

Ningpo Fishmongers' Union.
Wênchow Blacksmiths' Union.
Wênchow Carpenters' Union.
Wênchow Copper Wire-Drawers' Union.
Wênchow Silk Weavers' Union.
Wênchow millers.
Wênchow postal companies.
Wênchow Barbers' Union.
General remarks; hours of labor; apprentices; strikes; "boycottings"; penalties.
Co-operative clubs.
Reflections.
General conclusion.

PART III.—SUPPLEMENTARY NOTES.

Agricultural laborers.
Agrarianism.
Contentment of the proletariat of China.

PART I.—MERCANTILE GUILDS.

The origin of mercantile guilds is succinctly given in the constitution and by-laws of the Ningpo guild at Wênchow, which, in a preamble such as those institutions usually publish for their *raison d'être*, says: "*Wei-kuan* were first established at the metropolis by mandarins among compatriots or fellow provincials for mutual aid and protec ion. Subsequently, merchants formed guilds like those of the mandarinate, and now they exist in every province."

How long metropolitan compatriot guilds have been in existence I have been unable to discover. Early in the Ming era a Kiangsu guild (*Yen-ling, Wei-kuan*) flourished at Peking, and it is probable that they were known as early as the Tang period. Being of the nature of clubs, their origin may have been much more ancient.

Provincial compatriot guilds have two main objects in view--protection against sectional prejudices to which settlers from distant places are subjected, and for the prevention of litigation among its members ; and, latterly, including the functions of chambers of commerce.

NINGPO COMPATRIOT GUILD OF WÊNCHOW.

In relation to the first-named object, the Ningpo-Wênchow guild (established at the close of the last century) says in its preamble : "For a century no province has been without Ningpoese residents. Ningpo is a maritime region. Those of its people who cannot find employment as agriculturists resort to other places for trade. Here at Wênchow we find ourselves isolated ; mountains and sea separate us from Ningpo, and when in trade we excite envy on the part of Wênchowese, and suffer insult and injury, we have no adequate redress. Meanwhile firms, each caring only for itself, experience disgrace and loss—the natural outcome of isolated and individual resistance. It is this which imposes on us the duty of establishing a guild."

CANTON COMPATRIOT GUILD OF PAKHOI.

This guild in its preamble says: "The people of Pakhoi are very covetous, and of a licentious nature, showing little respect for the laws ; while cases of robbery and theft are innumerable, to the great annoyance of our merchants; and when trouble arises between our trades and local merchants there is no way of dealing with the latter.

"It is hoped that the rules we have adopted will lead to uniformity of action and unanimity of feeling among our members, who are bound by ties of townsmanship, and in this way secure ourselves against gradual degeneration, while it will teach those outside the guild that, being of one mind in our determination to oppose wrong, unscrupulous merchants and bad characters will seek to avoid us, and so avert their own discomfiture."

It is strange that institutions of such obvious utility should be of recent formation. According to the above they were scarcely known two centuries ago.

With regard to self-protection, which was the principal cause of their establishment, that function is effectually secured by the semi-official character that is accorded to them by local authorities. They undertake "to prosecute in behalf of their members when satisfactory proof is afforded of the equity of their claims. Members having occasion to go to law to obtain redress for a real grievance, and finding their resources inadequate to carry on the suit, the guild will address a joint petition to the court praying for an adjustment of the case. Half the expenses of legal proceedings will be defrayed from the funds of the association; but if it is discovered that the plaintiff has an unworthy case and no resources, or that his trouble originates from gambling or dissolute life, all claims to assistance will be dismissed. Members going to law to effect a settlement of claims will have three-tenths of the cost defrayed by the guild, the balance being borne by the litigants. But before legal proceedings are commenced, the unanimous consent of a meeting of members for approval of action shall be obtained. The three-tenths contributed from the fund shall be inclusive of the amount involved, and will only be issued when the claim is insufficient to cover the cost of legal proceedings. When the claim sued is sufficient to liquidate costs, no grant will be made—not with a view to the saving of expenditure, but with the object of preventing advantage being taken of this rule for the sake of gain and to repress the spirit of persistency in litigation among members."

GUILDS VERSUS LOCAL AUTHORITIES.

When piracy prevailed on the coast complaints of victims were immediately written out by guild secretaries in due form, which secured such redress as was possible.

Protection is sometimes needed against local authorities. Take the foliowing [illegible] records of the guild of the Ningpoese at Wênchow: [illegible] present century a dearth of rice [illegible] staff of life [illegible]

GENERAL ADMINISTRATION OF GUILDS.

The officers consist of a general manager; a committee, who are elected annually, but eligible for re-election. In large centers of trade each staple commodity has its committeeman, as at Ningpo. The Fukien guild has three distinct departments—sugar, timber, and miscellaneous articles—while there are also subguilds for several of its prefectures. In small ports the management is often assumed by members in turn. The most important functionary is the permanent secretary, a salaried scholar of literary rank, who, in virtue of his literary position, has the right of personally interviewing the mandarinate, and, as guild delegate, has a recognized official standing. He is a medium of all correspondence, and at the Yamêns appears as the guild's legal representative, pleading for its interests, demanding redress for its injured members, defending and protecting his constituents as occasion requires. He is useful to local authorities in soliciting from his guild subscriptions for public works, charities, and extraordinary exigencies.

The membership seldom exceeds thirty, and when meetings are convened those who attend are not too numerous to consider questions that come up for discussion. Although there are no written parliamentary rules for proceedings, decisions are arrived at with the decorum that befits deliberative bodies generally. Every institution, however, has its garrulous, fussy, crotchety debaters, not less in China than elsewhere. One of the guilds has found it necessary to protect itself against such members; its single regulation reads: "At the public meetings of the guild, should there be any one of higher abilities than the rest, with a plan of his own to propose, whatever his station may be, he must argue and explain the case before all the members. He must not continue to dispute the matter after it has been decided, as such a proceeding is useless when there is no one to second it; that will prevent waste of the guild's time." A further security against useless palaver disallows junior partners attending meetings.

GUILD HALLS.

Chief among edifices in mercantile emporiums are buildings erected by guilds for headquarters—places of meeting, theatrical representations, and as lodging-houses for high officers when traveling, and for scholars *en route* to metropolitan examinations; chaplains—Taoist and Buddhist.

"Women and girls are not admitted to guild halls, to the end that decorum may be maintained."

Sometimes these structures are truly palatial, representing the highest specimens of Chinese architecture; all that the arts of gilding and carving, masonry and sculpture, can effect is done to render guild halls imposing, the most striking portion being a court for theatrical performances in honor of the gods. At one end is a stage; at the other, shrines; in surrounding balconies the privileged witness plays, while feasting and chatting, the open court being free to the general public.

REVENUE.

Funds are raised from self-imposed taxes on commodities sold by the members—assessments varying in amount according to exigencies, averaging one-tenth of 1 per cent., which necessitates a monthly inspection of the books of every establishment, the examination being made by clerks of the various firms in rotation, two being detailed every month for that purpose where the firms are numerous, as of timber merchants at Ningpo. Some guilds levy a higher rate on certain articles than on others, as at Wênchow, where the Ningpo concern exacts 8 coppers for every 1,000 coppers' worth of medicine sold by those members who are engaged in the drug trade, and only 2 coppers from beancake dealers for a thousand-worth of that article disposed of; dealers in other articles are charged, some less, none more, than those charges, the intrinsic value of the commodities forming a basis for the assessment; those who deal in valuable articles consenting to a higher tax than that paid by dealers in coarse goods. The same guild levies a tax of $2 on each Ningpo junk that arrives; in this way the shipping interest pays its quota to the guild treasury. The Canton guild at Shanghai does not now tax the trade of its members, the income from its property sufficing to meet current expenses. The amount of income varies from a few hundred dollars, in small marts, to half a million, as in the case of the druggists' guild at Ningpo.

There appears to be some friction in its working, attempts being sometimes made to represent current sales as less than the truth warrants. Punishment is provided against such delinquents by the infliction of fines.

A by-law of the Canton guild at Pakhoi reads: "At the annual meeting members shall hand in duly sealed statements of their contributions for the year, making obeisance in the guild temple in asseveration of good faith. In the event, however, of any account being confused or called in question, it is understood that, notwithstanding the member shall have already testified to its accuracy before the gods, a ballot will be cast to decide whether the member whose account is doubted shall produce his books for the inspection of the members. If the account proves to be false, he shall be fined five times the amount due, and if he refuses to produce his books or to submit to the finding of the meeting, he shall be expelled from the guild."

It appears that in this guild there is no provision for examining its members' books.

GOVERNMENT.

Guild regulations vary, of course, according to the particular traffic which forms its bond of union, a full account of which would acquaint us with the intricacies of Chinese mercantile law. Guilds are tribunals of commerce that enforce laws of their own enactment, by which litigation is narrowly circumscribed, their rules being regarded by the courts as authoritative. A few instances will suffice in illustration.

Members are kept well in hand by laws like the following: "It is agreed that members having disputes about money matters with each other shall submit their cases to arbitration at a meeting of the guild, where the utmost will be done to arrive at a satisfactory settlement of the dispute. If it prove impossible to arrive at an understanding, appeal may be made to the authorities; but if the complainant have recourse to the official direct, without first referring to the guild, he shall be subjected to a public reprimand, and any future case he may present for the opinion of the guild will be dismissed without a hearing." It is not, however, only when disputes arise respecting "money matters" that guilds claim the right to adjudicate, but their intervention is experienced in quarrels generally that occur between its members.

Another rule to prevent members going to law reads: "Among the members of our own compatriots who come here, there are those who engage in business transactions, and have current accounts, as well as in making joint speculations. It is impossible to say that disputes may not arise among them. If anything of the sort occurs, the guild shall settle the difficulty in the manner most advantageous to all. Justice shall be observed, and the facts of the case brought to light, and the matter be decided according to what is right. No concealment must be employed, that justice may be manifested."

"BOYCOTTING."

"It is agreed that, after a member of the guild has been expelled, or a local firm has been expelled by its members, all intercourse with such parties shall be suspended. Any member discovered to have had dealings with them, either from sympathy or friendship, shall be find 100 taels."

Few guilds have articles that expressly provide for "boycotting" persons other than their members, yet the proscription of all offenders is employed to the fullest extent possible, and vast is their power when earnestly exercised.

RULES ON CREDIT, STORAGE OF GOODS, ETC.

Descending to details, we find regulations on specific subjects.

Credit.—Each guild has rules on sales by credit which is peculiar to itself. Here is an example: "It is agreed that, in selling goods, the times of payment thall be, in the case of cereals and the like, forty days after delivery; in beancake, fifty; and [illegible] commodities, fifty days; infraction of this rule subjects the seller and [illegible] expense of a theatrical performance, and two [illegible] an expense of about $25

Weights and measures.—Provision is made by each chamber of commerce for standard steelyards and measures. "It is agreed that the guild shall keep a standard set of weights and measures, which shall be adopted by all members, that there be no light issues and heavy receipts. Should it become known that a member is using scales at variance with the standard set, he shall be heavily fined." Unfortunately there is no common standard, most guilds and traders having their own.

Tare.—Rules fixing the tare of articles occupy a large space in printed guild regulations, every common article being subject to certain deductions.

Fire loss.—Some guilds maintain fire-engines, and require their members to aid in extinguishing fires. The rules of the Ningpo Shantung Guild make the seller of goods in storage sufferers for their loss by fire for five days after the sale; and when destroyed later, the purchaser makes good the loss. In cases of destruction in civil strife, it is agreed that purchaser and seller shall be equal losers.

Closing and opening of a year.—"It is agreed that no business shall be transacted before the middle of the first month of the year; that goods sold in the tenth month shall be paid for by the middle of the twelfth; those sold in the eleventh be paid for in the second month of the year following; that goods sold in the first month shall be regarded as if sold at the beginning of the second; and that from the first of the second month, the forty, fifty, or sixty days' credit allowed to certain commodities respectively shall commence. It is provided also that goods sold in the twelfth month shall be taken by the purchaser, or be liable to charge for storage."

Police.—Compatriot guilds are to some extent made responsible for the behavior of their members; hence one of the decrees: "That inasmuch as customs duties and octrois for war expenses (*li-kin*) are levied for the good of the state, it behooves all members to come forth with alacrity and pay them. The consequence of attempts at evasion or fraud on the revenue involving fines by the authorities must be borne by the individual implicated, who must clear himself of all trouble as best he can, as the chamber will not concern itself in such affairs." The same guild undertakes to assist in the recovery of stolen property. "Any member concealing a robbery or retaining stolen property, in order to exact a heavy ransom, shall be fined ten times the value of the goods, and if he fail to pay the fine he shall be expelled from the chamber." Rewards are offered by the guild for the capture of thieves.

Fictitious selling and buying.—The concluding regulation of the Ningpo Northern Chamber of Commerce is noteworthy. "It is agreed that, fictitious buying and selling being illegal, this chamber entirely interdicts that to its members. If violations of that law come to our knowledge, we will transmit to the authorities the offender's name; assuredly no favoritism will be shown." A most wholesome rule, and very creditable to the merchants by whom it was enacted.

This offense is not specified in the statutes and criminal code (大清律例 把持行市 1883), but that grand monument of Chinese legislation provides against "monopolizing markets"—a law that is exceeding broad, so comprehensive and distensible as to include penalties against mercantile transactions, generally, that are inimical to the public weal. Under it, a gang of coolies who combine to abuse their monopoly of the porterage of a particular landing may be punished; while it takes due cognizance of speculators who corner markets and manipulate finance.

In a recent work devoted to *causes cèlébres* (刑案匯覽卷十道光甲午), two cases are reported of imperial intervention in this class of offenses, which seems to have attracted attention then for the first time, being apparently new.

In 1823 a censor memorialized Tao Kuang respecting fictitious traffic in breadstuffs, representing that certain merchants, availing themselves of a drought that was affecting the food supply, in a portion of the metropolitan province—Chihli—had established syndicates for fictitiously buying and selling cereals, none of the crafty merchants themselves possessing a grain of any cereal, affixing their signatures to paper that represented nothing; by which grain fluctuated in price, and was kept from market, greatly to the detriment of purchasers of food for their own consumption. On the censor's motion, His Majesty took up the subject, and ordered Chi-shen (who subsequently negotiated the treaty of peace with Elliot, 1841) to thoroughly inquire into and severely deal with the evil. At the same time the governor-general and provincial authorities generally were commanded to issue prohibitory proclamations against the practice.

Three years later the same censor represented Manchuria as suffering in its food supply from the same causes, unscrupulous merchants [illegible]

Charity.—Compatriot guilds (*landmannschaften*) are not professedly benevolent institutions, but in one form of doing good they all take part—the coffining of the dead and interment. They either send cadavers back to their native place or establish cemeteries for fellow townsmen where they have been domiciled. In some cases widows and orphans are provided for, and the destitute sent back to their homes.

To many the foregoing will afford sufficient information on the subject, but others probably will be interested in further details at some length. I submit, therefore, the salient features of several of the principal guilds of Wênchow, Ningpo, and Shanghai.

WÊNCHOW DRUGGISTS' GUILD.

Preamble.—From days of yore to the present all occupations have commenced their organizations by establishing regulations, to be subject to modifications by time and circumstances. Accordingly, we of the drug trade, in the reign of Hsien Fêng (having previously been divided into two guilds), united and formed a compact body without reconciling old and new rules, and, therefore, for the past ten years irregularities have occurred, necessitating their codification. Consequently we assembled and agreed on the new rules here subjoined. Henceforth they are to be conformed to in their entirety; their violation, when discovered, will entail the penalty of two plays and liquor and viands for over twenty persons. This notice is given to caution against infringements of the following laws:

"It is agreed that all accounts shall be settled at each of the three terms of the year.

"It is agreed that deductions of 5 per cent. be allowed for cash payments, but not on credit transactions.

"It is agreed that when a member is in debt to another, and transfers his dealing to a third party, the guild shall bring the three members together, and that he shall not be allowed to trade with the latter until he liquidates his debt to the former.

"It is agreed that a member who allows a customer a higher rate for dollars than their market value for the day shall be mulcted.

"It is agreed that a druggist newly commencing business shall pay an initiation fee to the treasurer of the God of Medicine Temple; if failing to pay up the due amount in full, the member who transacts trade with him shall be fined to the full extent of the deficiency."

FUKIEN GUILDS AT NINGPO.

Chief among the guilds at Ningpo, and the oldest, is that of the Fukienese. It resembles a chamber of commerce in certain of its functions. Its constitution, *mutatis mutandis*, is like that of the Canton guild at Foochow already named. While the Fukienese merchants are united in a general guild, they are divided into as many subassociations as there are districts represented by them, each having a separate code. The following synopsis of those of the Amoy, Ch'uan-chow, Foochow, and Hsing-hua throw light on the nature of those organizations.

AMOY-FUKIEN SUBGUILD OF NINGPO.

Preamble.—It is said that well-conducted commerce yields threefold profits, and that the promise of a man of his word is worth a thousand taels. We of the trade who have come from Amoy by sea, a long distance, have for many years harmoniously conducted business at Ningpo, but after the Taiping rebellion our rules of trade were neglected. Now, however, peace having been re-established, it behooves us to improve those regulations for the promotion of sound trade; it is important to have proper methods of a permanent character and expressed in few words, that they may be perfectly comprehended. Commerce has its laws founded on reason, which conduces to concord; and the subjoined have been agreed upon by us.

General regulations.—All dealings shall be in dollars. Promises to pay are to be [illegible] according to commodities particularized). Five [illegible] if not taken by that

rebellion our trade suffered and our hongs were destroyed. On the restoration of peace trade revived and called for renewal and improvement of former regulations to secure the confidence of those with whom we deal, that all may like to trade with us.

Regulations.—Dollars are the recognized currency of the trade. Sixty days is the limit of payment for purchases of paper of Fukien manufacture, and thirty days for other commodities. Promissory notes not to be post or ante dated. Other details respecting packages, together with other rules resembling those of the Fukien merchants, are given.

HSING-HUA SUBGUILD OF NINGPO.

Preamble.—We have heard that in commercial transactions the principles of gain-getting are uniform and constant, and (to employ a classic phrase) including transport, from places of abundance to places of scarcity, and to change places of abode. We came from Fukien to Ningpo for purposes of trade. At the commencement we established regulations for its control, but during the Taiping rebellion they fell into desuetude; when peace returned and commerce recommenced, the following improved regulations were enacted (at a meeting during a theatrical performance in honor of the Queen of Heaven), which we solemnly agreed to follow.

The regulations are substantially the same as those of the other Fukien guilds, and the same enactments for infringements of the laws.

AMOY SUBGUILD AT NINGPO.

Preamble.—In prosperous ports, profits are trebled, but to that end, truthfulness and sincerity are indispensable. We have settled for many years at Ningpo, having come by sea from Amoy, and have had continuous amicable relations with Ningpoese buyers and sellers, but we find it necessary to revise our regulations and formulate new ones, those formerly in existence having fallen into desuetude during the rebellion. The return of peace and restoration of trade have led us to agree upon the following as complete and inviolable by-laws, in order that none may be deceived, thus securing permanent concord between sellers and buyers.

Summary of by-laws.—Purchases and sales to be made in dollars. Promissory notes to be dated the day of sale. For breadstuffs, to run ten days; woods and rattan, thirty days; sugar and miscellaneous goods, twenty days. Five days after sale the articles are to be removed from godowns; after that period, for loss by fire or damage, the seller not to be responsible. For goods purchased on board vessels, when they are once put on board cargo boats, the seller is no longer responsible. The date of promissory notes is to be that of the day of sale, and is not to be altered; they are not to state the day when the money becomes due (that being fixed by the above-named rules, varying according to commodity). It is not necessary to give in the note the name of the godown from which the goods are taken; but when taken from a junk, her name is to be written.

Purchasers are to bring their own steelyards to the godown. The weighing is to be in the presence of the parties concerned. When goods leave godowns or vessels, no corrections in weight are admissible, nor allowance made for breakages or leakages of inclosures of merchandise. No allowance for dried fruits that become damaged after the day of sale. Goods not taken delivery of five days after sale are subject to charge for storage. Three kinds of steelyards are recognized, and the commodities for the weighing of which one or other of these instruments is used are specifically named; each article to be weighed by the steelyard that has been fixed by custom.

CH'UAN-CHOW SUBGUILD OF NINGPO.

Preamble.—It is said that the ways of trade should be equitable and that dealers and customers should be governed by good faith and probity. In establishing commercial regulations, justice should be of a durable character in matters of selling and buying. New and old regulations should be adapted to changed conditions. We came thither a long way by sea, and if we do not stand well here for straightforwardness, we can acquire no wealth; and as the former excellent rules have come to be disregarded, we assembled for improving and supplementing our rules, that there may be no defects. We all hereby agree to [illegible]

not removed five days after sale to be forfeited to the guild. Abatements that may be made in the prices of sugar are fixed, and penalties are provided for reducing such abatements. Twice a month all steelyards employed by members are brought to the manager for the month, for testing and verification.

SHANTUNG GUILD OF NINGPO.

In the halcyon days of protection and monopolies, the Northern guild (usually called Shantung guild) was one of the most important mercantile bodies in China. Its individual members owned about 140 large junks, expressly adapted for northern navigation, but unfitted for southern voyages. Ningpo was their port of departure, to which they returned—making the round trip from two to four times a year; transshipping northern staples into southern vessels, and receiving from those the products of the south. It was a highly remunerative trade, but antipodal merchants and mariners swooped down on the China seas, clutched its traffic, and the glory of maritime guilds vanished, with their monopoly, forever. Commodities were transferred to foreign bottoms; the stately junks were taken to pieces and made into small vessels, to carry to non-treaty ports, which, foreign vessels being unable to reach, Chinamen were allowed to retain for their own use. This is a somber view, but the case affords a brighter aspect; the removal of restrictions on trade increased the gains of producers, lightened charges to consumers, and contributed to the enrichment of the imperial exchequer. To these advantages is to be added the stimulus which foreign competition imparted to native merchants, who gallantly fight fire with fire; themselves now employing steamers, keeping down freights, and making things in general sufficiently lively, and all for the common weal. The last struggle of this guild to maintain its supremacy was shown in its procuring insertion in the regulations of trade appended to the Tientsin treaty a special clause prohibiting the export of pulse and beancake from Tungchow and Newchwang under the British flag. [That clause has been since rescinded.] But as regards importing those articles into Ningpo, their monopoly is still preserved.

Seven years ago the guild issued the following regulations:

Preamble.—We learn that Shun, B. C. 2255, made uniform the measures of length and capacity, and corrected the steelyards; and that, in the early Chou period, measures of capacity were provided and engraved with descriptive characters; that gemmeous weights were made, market hours were fixed, and credit allowed for ten days. Thus it appears that arrangements were made of old for even and fair business transactions—as we now desire them to be.

At the present time the Empire is prosperous, the sea is no longer infested by pirates, and vessels, like clouds, ply from north to south and from south to north. Unless a man's simple promise is worth a thousand catties of gold he will nowhere be trusted. Goods must be transported to the advantage of all concerned. These are axioms.

Times and circumstances change, and old rules required to be adapted to new conditions; to be equitable and conformable to men's feelings, they should be as even as the balance, as uniform at the waveless ocean, and observed with a punctuality as sure as the unerring tides, in order that confidence may be maintained. To that end we agree to the following rules:

Credit.—All purchases and sales to be in dollars. Payment for grain, forty days after purchase; oil and beancake, fifty days; commodities sold in bundles, sixty days from the date of the bill of sale. Infringements of this rule to entail on each, seller and purchaser as well, the expense of a theatrical performance and banquet.

Storage.—Formerly, over half a year sometimes transpired before purchased goods were removed from storage. Hereafter, at the expiration of seventy days, storage is to be charged. [Here follow details for non-compliance with which the guild inflicts heavy fines. Ten days is the limit allowed for removal of goods from junk board. Goods consumed by fire in godowns five days after sale are not to be paid for by the purchaser; after that date the seller is no longer responsible.]

[illegible] in the tenth month to be paid for on the 25th of the twelfth month; [illegible] paid for on the 15th of the second month of [illegible] are to be reckoned as [illegible]

Fictitious buying and selling forbidden to members of the chamber; offenders to be reported to the magistrate for punishment. Violations of other rules to be mulcted by the chamber.

Separate sheets are issued relating to porterage and the like. Charges for hampers, bales, boxes, &c., for each commodity, and an additional allowance made as a gratuity to prevent pilfering.

SHANGHAI TEA GUILD.

Ordinarily, guild regulations are printed on red placards and pasted on the walls of mercantile and manufacturing establishments; but the rules of the Shanghai tea guild are too numerous for a placard, being thirty-one in number; they are issued in pamphlet form. As foreigners take much interest in the commodity in which this guild deals, I submit a *précis* of their *brochure*, published in 1871.

The preface states that formerly dealers in tea and silk were united in a common guild, but their hall, having been occupied by French troops during the Taiping rebellion, fell into decay, and was presented to a benevolent institution. Subsequently, the silkmen formed a guild of their own; and gradually every occupation became organized in like manner [implying that, in the earlier period of foreign trade at Shanghai, guilds were few in number and generally insignificant].

Tea dealers also found it necessary to establish a guild, which was the more important in that "commerce with foreigners required to be conducted with good faith and rectitude, and also dealings with country growers, manipulators, and sellers of tea should be equitable; and seeing that, latterly, men's dispositions have grown perverse, and trade thereby rendered more difficult, it is obvious that without such an institution the accumulated abuses of the trade could not be eradicated, nor correct regulations established; neither could needful reforms be effected." This is given by the tea guild as its *raison d'être*. It was established in 1871–'72, and is composed of proprietors of tea storehouses or godowns, who act as the agents for tea producers or proprietors.

Administration.—A committee of twelve is elected annually, each member serving for one month. Members elected to serve on the committee may not decline; the duty is obligatory. When an emergency occurs, the acting member of the committee for the time being summonses several or all his colleagues for deliberation, who are required to be punctual and to transact the business equitably. Any who arrive after a decision has been arrived at shall not be allowed to move a reversal, but shall be mulcted to the cost of a banquet for over a score of members.

A permanent executive officer represents the guild at the Yamêns, and conducts its correspondence. He is a literary character, and conversant with public affairs.

An accountant is employed to receive dues from members. Directions are given touching the mode of keeping books and records, which are to be open at all times for inspection.

Two firms act as treasurers, who are to select safe banks for depositing the guild funds.

A special regulation provides for the appointment of a foreign lawyer, whom the committee may consult when there is need for protecting the members' interests, and who is employed, "not from a desire to litigate, but that when foreign merchants disregard mercantile laws, craftily interpreting it to suit themselves, they may be frustrated." In such cases the manager for the month must repair with several colleagues to the foreign firm to discuss the subject. "In all probability, a myriad to one, it will be satisfactorily adjusted; but failing in that, and the guild member suffering injury, the case is to be committed to our legal adviser."

Revenue.—Members are assessed pro rata on their sales. For every large box of black tea sold they are to pay to the accountant 8 tael cents; less for smaller boxes; and for green tea 6 tael cents; the subscription to be paid in advance on the arrival of the tea at Shanghai—based on the sales of the previous year. Should the current year's sales fall short of last year's, the excess of subscription to be refunded. On the first Sunday of each month members are to send to the guild accounts of sales for the past month, with a corresponding sum as subscription. If understatements are discovered, the delinquent is mulcted fifteen times the amount due by rule.

One hundred dollars are to be paid into the guild treasury by the [illegible]

Insurance.—Tea brought up from the country by dealers, on which money has been advanced, is to be insured by them against fire; they are not to begrudge that item of expense; but insurance is optional when there are no claims against the tea.

Advances to the country owners.—When subagents are dispatched into the tea districts with money to advance to tea producers, they must act for one firm only. If this rule is contravened, the tea purchased is to be given on its arrival at Shanghai to the firm by which arrangement was first made; and the other firm's money is to be returned. If on the arrival of teas further advances are required, the storage firms will carefully ascertain the quantity of tea offered, and not advance in excess of its value; if more than that is needed, the country tea-trader must provide it himself; his tea will be kept for him two months, and then sold without waiting for a rise in the market.

General rules.—The firm in whose godowns tea is stored are to have the sale of the article, but its sale may be committed to another tea-storing firm on liquidating all claims against it.

Commissions, &c.—The charge for duties paid, storage, interest on money advanced, and commission, shall be 4 per cent.; 3 per cent. if money has not been advanced.

Erstwhile, frauds in the tea trade were unknown, but of late years tea-producers frequently employ secret marks to indicate different qualities of the herb, and deceive purchasers by false samples, which when it comes to be weighed is discovered, causing contentions, which foreign merchants avail of to depreciate the whole lot, demanding abatements in price, all which is subversive of equitable mercantile ways. We now write to the hill tea districts, requiring uniformity in the quality of the staple, and conformity with samples.

When tea is brought to Shanghai for storage, boxes shall be opened indiscriminately. If, perchance, the article does not correspond with the muster, Chinese and foreign merchants shall be called to examine the whole lot, the contents of all the boxes to be turned out for public inspection. If the examination shows the tea not to correspond with the sample, those present may decide what should be done in the matter. If tea-tasters unjustly depreciate a chop, the case shall be submitted to arbitration to make equity manifest.

"*Boycotting.*"—Pending litigation with a foreign firm, members of the guild shall transact no business with the derelict house; intercourse is not to be resumed until the case is adjudicated. Should any member secretly violate this rule, and it comes to the knowledge of the guild, the offender shall be condignly punished.

Porterage on tea purchased by foreigners and conveyed for them to steamers is to be paid by them. Recently, however, they have demanded that the expense of such porterage be paid by native merchants. In cases of that kind complaint is to be made to the manager of the guild at the time, who shall remonstrate with the foreign merchant. If the offender persists in the demand, he shall be tabooed. Should any secretly consent to the charge, punishment shall be duly inflicted.

Regulations.—An unopened box of tea, taken to the foreign dealer as a muster, and if not weighed by him, its weight must be taken as given by the teaman when delivered, who is not to be required to make good any deficiency. A box already opened must be weighed on the spot and its weight recorded. If the muster is returned, it must be again weighed—a catty or two missing is of no account; but if more, it must be paid for. An unopened muster box is to be opened on the spot and its weight recorded; and if the bargain is not completed, the muster must be again weighed; and if more than a couple of catties of tea are missing it must be paid for.

For binding tea boxes with rattan [which is done by the foreign purchaser] eight taels per 100 boxes is to be allowed him—albeit the cost is only five and a half taels. When more than that amount is demanded for rattaning, appeal is to be made to the acting tea guild manager for the month and others to remonstrate with the foreign firm, in order that there may be uniformity. Any tea-dealer giving more shall be dealt with by the guild.

Duties on teas brought to Shanghai from Hupeh and Hunan shall be paid at [illegible] firms, and charged at the then value of sycee. In- [illegible] to Shanghai, and river insur- [illegible] made for in-

It shall be sold by the guild after communicating with the mandarinate. If money be still due on the tea judicial proceedings shall be instituted to enforce the claim. Should the tea bring more than the amount of claims against it the balance is to be paid to its owner. Storage hongs must be cautious and not advance more than the tea is likely to fetch.

The storage hong should be allowed to purchase the tea that it receives on storage, unless the teaman can get a higher price elsewhere, when he is to inform the custodian of his tea, who shall allow him to take it away on payment of charges. If the offerer of a higher price fails to fulfill his promise, he shall be punished by the guild.

Porterage of black tea from the godown is to be defrayed by the godown hong; if it is charged to the teaman, he may inform the guild manager for the current month and the guild shall decide on the punishment to be inflicted.

Insurance.—Tea stored in Shanghai on which advances have been made must be insured against loss by fire. Teamen must not begrudge the expense. If no money has been advanced, the teaman may do as he likes as regards insurance.

The guild hall being for the transaction of public questions, it shall not be used for traveling officials as a temporary hotel, nor for mercantile guests; nor shall women be allowed to lodge there, in order to illustrate the important rules of decorum.

Semestral meetings shall be held for reconsidering the rules of the association, and for the worship of Kuanti (god of war), the first to be held on his birthday, 13th of the fifth moon; the other, 13th of ninth moon.

SILK GUILD.

The rules of the silk guild vary so much from time to time, according to exigencies of trade, that it has ceased to have them printed, and no member can be prevailed on to furnish a copy or to state what they are. Two examples have been recently furnished of their fluctuating legislation. It was suddenly decreed that instead of silk being paid for by the purchaser on the day immediately following the departure of the mail, the account was to be settled as soon as the commodity was weighed; a rule that was observed for a few months only, when it was disregarded and finally duly abrogated. Again, an order went forth that muster bales of silk should be weighed separately, and the bulk weighed to the half-pound only, disregarding fractions; and a prohibition was enacted against tenders of sale on firm offer to consuming markets in Europe and America by wire.

BANKING.

I devote considerable space to the regulations of banking institutions, for the use of those who are studying the intricacies of Chinese finance.

NINGPO BANKERS' GUILD.

A few years ago the constitution of the guild underwent a change for the better, which is undiscoverable in its present rules. It was until recently the practice of bankers of that city to hold sessions twice a day in a thoroughfare that may be denominated the "Wall street" of Ningpo, for the purpose of speculating in the market value of dollars as quoted in the next dispatches from Soochow, or from Shanghai when that port took the place of the former as money mart. To a stranger the spectacle presented the appearance of a crowd of excited madmen escaped from confinement. For more than an hour every forenoon, and for the same time every afternoon, they thronged the street, so as to render it almost impassable; all the time vociferating, so that the din was deafening, and business had to be conducted by dactylonomy, indicating by fingers fractions of sums for which dollars were offered for sale, or sums which buyers were willing to give—*e. g.*, $10 would be offered for sale by outstretched digits at 1,130 coppers; if accepted, bull and bear retired and made a record of the transaction, and on the arrival of intelligence from the money market, if the dollar varied in value a copper from the figure fixed upon, one paid the other 10,000 coppers. Sellers and buyers were generally brokers, having for constituents bankers, money-changers, merchants, traders, scholars—all classes, in fine, were so fascinated by this form of gambling

blurred by a process known to all mankind. "Wall street" again became as lively as ever.

I once took Sir Rutherford Alcock to witness the spectacle of bidding on the prospective value of dollars; he pronounced it one of the most striking scenes he had ever witnessed. Ultimately the evil effected its own cure. When native speculators at Shanghai had floated various giant stock companies, and the gambling in shares became rife, Ningpo became more than ever infatuated by the dollar-jobbing mania; and when the crash took place at Shanghai, great defalcations were discovered at Ningpo, involving chiefly young clerks and bankers' sons. Ruin was brought upon many, and suicides by opium or drowning followed to an unprecedented extent. These disasters moved the money-dealing community to suppress fictitious dollar-dealing, by forbidding the practice to its members; but a class of brokers had come into existence which did not recognize the guild. Sham dollar-selling had become a profession in itself, and was employed by the gambling public generally. Bankers petitioned the magistrate for a proclamation against the brokers who had organized a guild of their own, and which threatened disobedience and resistance; they were only placated by receiving aid from the authorities until they found other occupations. Thus a custom that had existed long anterior to the first appearance of dollars, about 1726, ceased at once; before that date the value of silver ingots in coppers was a subject of speculation from an unknown period.

Now all the meetings are restricted to the guild hall, on the walls of which are the following regulations:

Preamble.—In examining the chapter on "Affluence through trade," in Sz'-machien (the so-called Herodotus of China, *circâ* B. C. 163–85), we find his thoughts on "the increase of goods" [in a biographical sketch of Kuan Chung (about B. C. 645), among the most illustrious statesmen of Chinese history, who was originally a merchant]; and in the Analects we find a weighty remark of Confucius, who says: "There is a great course for the production of wealth. Let the producers be many, and the consumers be few. Let there be activity in the production, and economy in the expenditure. Then the wealth will always be ample." Consequently, those at hand will be gratified, and others assemble from a distance, and amicable mercantile intercourse becomes protracted, as a natural result.

Our profession of money-dealing originated on the establishment of the nine bureaus of the treasury department of the Chou dynasty (B. C. 1122). But the division into five degrees of weights dates from the Han era. It is of urgent importance that those who have should be able to exchange with those who want, and that small coppers should be exchanged for large ones—for convenience of the people on the one hand and for government finances and taxes on the other; in fine, our occupation is the pivot of commerce.

Then follows an account of the vicissitudes of the guild during the Taiping rebellion; of the "happy restoration of peace through the combined military operations of Chinese and foreigners; the revival of trade; the encouraging prospects of the future," and a devout wish for continued peace and prosperity, through accumulations of goods and double profits. Next, reference is made to their abandonment henceforth of paper money, and to the decision to restrict all transactions to ingots and dollars, owing to the changed condition of business affairs [of their accord bankers then made an end of free banking, which had led to many evils, though the chief reason for the change was the transfer of the money center from Soochow to Shanghai, which being now so near in point of time rendered paper money unnecessary], and at a meeting convened for the purpose they agreed to conform to Shanghai usages in monetary transactions generally. The regulations then adopted are to be binding on all, without prevarication, all agreeing to circumspection from first to last; to be equitable and diligent in the right mode of acquiring wealth. "Let all the gentlemen composing the guild co-operate in promoting the business of the port by correct and sincere endeavor."

The first rule is creditable to the Ningpo bankers. It reads: "Amicable intercourse with foreigners has long subsisted, and it is incumbent that in commercial [illegible] we should embody the liberal feelings of the Emperor, and not fail to [illegible]."

[illegible] to be elected

Currency.—Dollars and ingots (Mexican and Carolus dollars) to be taken at their respective values [Carolus, being heavier, at a premium] in copper or ingots. Eight descriptions of dollars not to be accepted—"light weight," "indistinct," "oily-like," "dull sound," "three-starred," "heads upside down," "coarse-edged," "thin-edged," and "yellow-tinged." Ingots of 45½ taels to pass current for fifty; but when further short of the standard weight the deficiency to be made good [of course fifty-tael ingots disappeared from Ningpo, or when used were at a proportionate premium]. Ingot and dollar deposits and payments to be made between noon and 2 p. m.

Interest.—Interest on accounts of $500 and upward to be paid at the ruling rule of the day. No one shall be pressed to lend money.

Sundry rules.—Promissory notes deposited by the promisee are to be made good by him in the event of bankruptcy of the promiser. The seals of members to be stamped in the duplicate books of regulations, minutes kept by the treasurer and the managing board.

SHANGHAI BANKERS' GUILDS.

A satisfactory account of the Shanghai bankers' guilds would include a survey of all the intricacies of Chinese banking, on which my information is scant, and, besides, I lack the financial capacity to make the best of the documents before me, which consists mainly of numerous sheets of printed regulations.

As usual in guild promulations, there is a classic preamble, which in this instance represents that "inquiry discloses that ways of commercial wealth have been transmitted by sages" [allusion is here made to Tzŭ Kung, one of the most famous disciples of Confucius, who acquired a fortune by trade before he devoted himself to learning]. "The 'carrying of cloth to exchange it for silk' (a phrase from the book of poetry compiled by Confucius) has been conducted from age to age without intermission, and imperial statutory laws have regulated money matters, which have been conducive to profits and repressive of abuses."

The bankers could add little to the above of an archaic character. No Chinese antiquarian that I wot of affords information on the early history of banking, although changing, depositing, and loaning money was doubtless almost coeval with money coining. At an early period we find emperors lending money to their lieges on interest. According to the Chou-li—"Polity of the Chou dynasty"—and commentary a "money bureau" was established under the control of four officers, to whom imposts on commodities were paid and who loaned money to the people from whom labor was exacted as interest on the loans, the amount borrowed to be returned at the end of the year. This unique department also purchased unsalable goods, storing them until they could be disposed of at the same price at which they were bought; and lending sacrificial utensils for ancestral worship for the period of ten days, and funeral paraphernalia (mourning habiliments) for a month, without charge, paying over to the Emperor at the close of each year its surplus funds. Wu-ti, B. C. 179–141, committed to two officers the function of lending money on interest.

Two other instances occur in Chinese history of imperial money-lending. The usurper Wang Wang (A. D. 9–14) lent the smallest sums of money to his subjects at 3 per cent. per mensem. He was a merchant as well as banker, purchasing commodities when they were cheap and selling when prices rose. In this he claimed to be conforming to ancient precedent.

The other case of imperial banking was in A. D. 1068–85, when the reigning Emperor lent semi-annually to his subjects sums of ten thousand cash, charging two thousand interest for the half-year. His usurious majesty also lent grain, but at higher interest. Money-lending to the state has never been in vogue; certain not infeasible reforms must precede such an exhibition of confidence.

Then there is the name of a famous banker of the former Han era (B. C. 32), Ku Yung, who received money from the affluent to lend to the impecunious, he receiving a commission for his agency. It is not likely he was the first of that vocation; but it was then, probably, modern, coming into existence with the extinction of feudalism.

Returning now to Shanghai bankers, we find their guild has been divided for convenience into a northern, the principal bank, the Yang-king-pang Creek forming the dividing line. Besides their common hall, each has a *Kung-so*—exchange or clearing house; that of the northern is situated in the Ningpo road.

The guild seems to date no further back than the reign of [illegible] quent to the opening of [illegible]

companies on shares of which advances were made, involving banks in their ruin].

In view of the stagnation of business, they felt it incumbent to meet and confer on the re-establishment of good rules, just as trees, to be made to thrive, require their roots to be made firm. They met and agreed on the rules that were adopted in the reign of Tao-kuang and Hsien-fêng. These, fourteen in number, with improvements, I summarize as follows:

Charges for cashing notes.—"It is agreed that no deceit shall be practiced in recording receipts and issues of Shanghai current silver. Dealers in piece goods, Canton, Fukien, Szechuan, and Hankow commodities, and opium, and also Kiangsi traders and merchants generally, whose checks are presented by foreign firms, shall be debited with a charge of half a tael for every thousand cashed."

[This is a new regulation; the reason assigned for its enactment is that those are demands for specie to be paid at sight. Some expense is liable to be incurred in getting ingots, particularly when trade is depressed; also because there is loss on odd sums.]

For the same reasons a charge is made of three mace for a thousand taels on notes cashed for Ningpo, Shaoshing, Hangchow, and Soochow. The same charge is made against the issue of checks to Kiahsing, Wuchow, Fukien, and Yangtze ports, and to Shantung and Chihli as well.

Interest.—A new rule suppresses a most usurious practice that has arisen among Shanghai banks, to wit, charging $10 for ten days' loan of a thousand dollars. A small interest is allowed on deposits that are unemployed by the bank, and when money is in demand, the amount of interest payable, and the amount to be charged to borrowers, is to be declared by all the banks on the fifth day of each month (determined at a guild meeting). At the close of each month an account is to be rendered to depositors. On the 15th, the rate of interest for Shanghai shall be declared (that of the 5th being for other ports).

On money advanced on tea and silk, interest is chargeable at the rate of half a tael per diem; accounts to be presented at the close of each month. In transactions between banks of exchange, the guild banks' interest is chargeable by each, 2 mace for a thousand taels.

[These banks of exchange are the agencies of the great bankers of Shansi, who remit funds to all parts of the Empire, and are in nowise connected with the Shanghai Bankers' Guild.]

Miscellaneous.—Deposits not made by 4 p. m. are to be reckoned from the day following. [Per contra, bills are not cashed until near that hour; if demanded in the morning, a slight discount must be paid.] In paying customs dues there is a specified charge for a hundred taels. Packages or boxes containing ingots are to be opened and the silver taken to the guild assay office for examination. [Assaying is sufficiently simple, consisting in gently holding the sycee to be tested in one hand, and grasping firmly the ingot with which to strike the other, the ring of the metal struck determining its quality].

Notes of Fukien sugar dealers are subject to a discount because of the inferiority of the ingots of that province. Notes having on their face "Payable by either northern or southern branch of the guild" are not to be received.

Regulations of the Northern Branch of Shanghai Bankers' Guild.

Dollars.—In paying out new dollars the issuer must imprint them with his seal [washing out the previous imprint], otherwise they shall not be current. Disregard of this rule entails a penalty. According to former rule, ten kinds of dollars are uncurrentable—to wit, the light, dull-colored, flowery-spotted, dull-sounding, copper-alloyed, edges unusual, three stars, circles (?) on the reverse, head upside down, yellowish hue, white—to which is now added such as have unusually fine edges.

Sycee.—Bills from or to foreign banks (and merchants generally) that accompany boxes of ingots are not to be altered; they are to indicate the number, weight, value in dollars, the premium or discount, all in capitals, not in running hand; also the [illegible] which issued, and seal, in order to prevent irregularities. New [illegible] when any are taken out of the lot, the

bank has to pay a foreign bank less than fifty, it must make out a descriptive bill, and seal it. When inferior sycee is paid by a foreign bank, it is to be returned the next day by noon (or if Sunday intervene, on Monday).

Miscellaneous.—Checks for less denomination than $10 are non-receivable. Guild banks having notes to be cashed at foreign banks shall present them before 3 p. m., except on Saturdays, when they shall present them by 11 o'clock a. m. When a foreign bank pays to a guild bank a round sum in ingots, the latter shall make out a bill for the balance.

Regulations of the Southern Branch of Shanghai Bankers' Guild.

Interest.—Loans of ingots are to be charged at the rate of 7 mace per diem for $1,000; the smaller charge for dollars is in conformity with orders from the mandarinate. For all checks cashed the sender is to be charged as under the old rules, from 3 to 5 mace for every 1,000 taels.

Against speculating.—In buying and selling dollars and ingots, all settlements must be made on the day of the transaction, that thereby there shall be no empty buying and selling. [This rule also is conformable to magisterial mandate; until its fulmination, not long since, the exchange of the northern branch of Shanghai banks exhibited the same maddening scenes as those which occurred among Ningpo bankers, as already described.]

Clearing house.—Each money dealer must send his books to the exchange twice a day, to square accounts, under the supervision of the manager for the month.

When orders are made payable in old dollars, old dollars are to be furnished; but when the kind of dollars are not specified, payment may be made in those in ordinary use by the bank.

These rules, supplementary to the old ones, conduce to the promotion of business. We unite in establishing them, and they should be loyally observed; their infringement shall be inquired into, and summarily punished.

Besides the above regulations, the general, as well as those by the two branches of banking guilds, there are old ones, written and unwritten, that govern banking, but these suffice to disclose the nature of the guilds.

In no other occupation is such liberty enjoyed. Nearly all others are compelled to be associated in those combinations, while more than half the Shanghai bankers act independently of the two guilds of that port. There are belonging to those guilds only 55 members, while the non-member bankers number 75, who, however, conform to guild regulations. Besides these 130 banks, whose business is mainly local, there are 18 Shensi and Peking banks of exchange; and, finally, there are 150 money-changing shops, wholly engaged in changing coppers for dollars.

GUILDS AND FOREIGN MERCHANTS.

In the history of foreign intercourse with China, the Co-hong Guild of Canton stands prominent as enjoying a monopoly in trade, as collectors of duties,* and as the sole medium of communication with foreigners, mercantile and official. Established in 1720, it continued until by the treaty of Nanking, 1842, it was abolished. Its spirit, however, animated so many that monopolies called for further measures of repression. In 1847 it was stipulated that foreigners are to be admitted to trade with any and all subjects of China, without distinction; they shall not be subject to any new limitations, nor impeded in business by monopolies or other injurious restrictions. Eleven years later the French treaty provided: "No privileged commercial society shall henceforward be established in China, and the same shall apply to an organized coalition having for its end the exercise of a monopoly on trade, the Chinese authorities to dissolve such associations, and to prevent the existence of any by prohibitions, so as to remove all that may stand in the way of free competition."

Considering that those attempts to suppress long-established institutions were forced on the Chinese, and considering also that many foreigners have systematically evaded their own treaty obligations, monopolies have been kept tolerably well in hand. Still, as Consul Giles remarks: "Several collisions have occurred that at the time attracted considerable attention, but which are now well-nigh forgotten." Some of these are here recorded, as further illustrating [illegible]

anonymously, the act being illegal) addressed a circular to all the ports, stating that, after a fixed date, Swatow merchants must cease to receive or ship merchandise or to charter sailing vessels or steamers. After the period named, two vessels that arrived had to have their cargo stored in their agents' godowns, the consignees not daring to apply for it from fear of "boycotting." Above 2,000 coolies were thrown out of employment. Thirty-five steamers suffered heavily from the suspension of trade. Emboldened by successes in "boycotting" merchants, the guild felt strong enough to beard and defy the authorities, for which the guilty were so condignly punished as to be deterrent of future enterprises of that description.

In 1883 a long-pending dispute between tea guilds and foreign tea merchants at Hankow came to a crisis, the former complaining of variable and false weights used by the latter, an abuse which they proposed to rectify by appointing an approved foreigner, to whom they were themselves to pay a liberal salary, who shonld act as umpire in all disputes anent tea weighing. Foreign tea dealers objected, not being willing to have an outsider on their premises when that operation is going on; and they convened a meeting at which it was decided to cease buying tea until it could be procured as under former usage. On that the native tea men "tabooed" the foreign firm, which, when it entered the market, found no tea men were allowed to send tea to a dissident merchant. Tea trading was totally suspended. Complaint was made to the Taotai, who declined to interfere on the ground that it was a matter entirely between native and foreign tea merchants. "Boycotting," however, soon set the wheels of commerce in motion. Had both parties been able to resort to that agency the quarrel would have been protracted and damaging to all concerned, but in that foreigners were impatient. The resolution which held them together was like a ligature of sand; they caved in, while every member of the guild stood firm. Some, it was believed, were rather shaky, but fortified by threats they neither budged nor flinched. Perfidy on their part would have exposed them to fearful persecution, while the financier's disloyalty merely subjected him to ostracism. In both cases the intent and spirit of the sanction was the same.

The victory gained by the guild was turned to no mischievous account. Subsequently at a meeting of the Shanghai chamber of commerce a member frankly remarked on the correspondence that had taken place between the chamber and the agent of the tea guild that he thought "it casts a very great reflection upon a large portion of the community and a reflection which they deserved."

An imbroglio at Ningpo is now taxing the acumen and tact of men in authority. Merchants at that port complain of "boycotting" by guilds or syndicates. No member of a guild is allowed to transact business with a foreigner without its assent, which is tantamount to a total prohibition, the penalty being boycotting—interdiction of all business dealings with the proscribed, a prohibition that extends to native traders generally, though not guild members. It is contended that this is a violation of the intent and spirit of the treaties; at the same time Consul Cooper shows it would be difficult to suppress the evil: "For, apart from the extreme unreadiness of any sufferer to give evidence against them, their establishment is in accordance with Chinese usage and is, moreover, a convenience to the provincial government, and even a source of profit."

The complication at Ningpo is due to the farming out of war octrois (or *likin*) to guilds and to the monopolies thus created; these are the foreign shirtings, foreign and Cantonese, coal and iron, tin and zinc, and opium guilds. That farming was brought about by foreigners themselves.

To save merchants the inconvenience of paying octrois at numerous inland stations, it was provided by the treaty of 1858 that transit dues on articles purchased inland and transferred to a port, or conveyed from a port to an inland market, might be commuted by payment of a single charge—a satisfactory arrangement; but on the imposition of the war tax foreign merchants claimed to have it classed with transit dues, and the advantage which passes gave foreigners over Chinese caused native merchants to engage foreign merchants to personate them, procuring passes in the foreigner's name, an evasion that led to the extension of the privilege to the establishment by them of special guilds which ar- all the inland imports on their its origin—farm-

same port a man from Swatow attempted to engage in the opium trade, but the opium guild, composed of Fukienese, issued orders that no persons should have dealings with him; and even foreign merchants were obliged to obey the behest, and the guild stifled competition.

Despotism seems to be as ancient as the institutions themselves, in East as in West; it is inherent, the natural cause of such combinations; without unanimity, they are comparatively impotent, and to secure that end they resort to despotic measures. They are monopolies also, yet being amenable to law, and as we have seen, to reason, their utility, it must be conceded, is more obvious than their mischievousness.

Consul Giles remarks: "Foreign merchants regard them with a certain amount of awe, for they are often made to feel keenly enough the influence which these institutions exert over every branch of trade." As against political usurpation of one or many, the price of liberty is eternal vigilance, so with regard to monopolies, which always aim to encroach, the only remedy is watchfulness. True, but when foreign merchants come to understand those institutions better they will discover that but for them the course of true commerce would not run as smoothly as it now does; these chambers of commerce or temples of Themis, in which the goddess is not blindfolded, but has her visual organs in full play—these temples are courts in which equity and common sense are usually in the ascendant. A single illustration must suffice to adduce out of many that present themselves. Very recently a merchant found in a certain transaction that a broker with whom he was conducting business had the "whip-hand." In the dispute, justice was on the side of the foreigner, while technically the native enjoyed an advantage. It was open to the merchant to bring the case before the mixed court—a course that would have been simply ridiculous—but he proposed to submit the case for arbitration to the guild to which the broker belonged; to avert the drastic proceedings which that proposition would entail, the broker instantly came to terms. It is not always a fearful menace for one foreigner who has been injured by another foreigner to institute legal proceedings against the derelict. It is too well known that, owing to the glorious uncertainty of our jurisprudence, offenders often escape with impunity; whereas in guild tribunals ethical are of more weight than technical considerations; and they are not to be regarded in the counting-room as mischievous bogies.

PART II.—TRADES-UNIONS.

The second class of guilds, denominated *Kung-so*—"public halls"—is generally composed of retail traders and artisans, and are of yet more recent origin than the mercantile associations, few of them being a century old. Early germs from which they arose are discernible, but as they now exist they are modeled on the *Wei-kuan*. It is remarkable that, although subject for many generations to the same environment, shopkeeping and mechanic classes should not sooner have formed organizations to avert the mischiefs of competitions for mutual aid against the cheapening practices of society and against official interference. With regard to mechanics, the unions are generally composed of masters and workmen, united as against society. In some trades where workmen are numerous, journeymen have their own organizations, but generally, when they have occasion to combine against employers (of which instances are rare), they meet in some temple, commence a strike, peacefully accomplish their object, and disband. Every union has its regulations printed on red paper, sometimes beautifully gilt, which are posted in stores or workshops. A familiar saw says: "Human occupations are 360 in number." Only those callings, however, that are common are found associated in societies. They present so much uniformity that translation from a few will suffice to show their general features.

NINGPO FISHMONGERS' UNION.

This is regarded as among the most wealthy associations in the country. Its reserved fund is estimated at $700,000, which is lent to banks and pawnbrokers at half of 1 per cent. interest, that charge being marvelously low, for greater safety. Their regulations read:

Preamble.—We have heard that, in trade and mercantile transactions, [illegible]

Regulations.—First. It is agreed that boatmen conveying fish from fishing stations, who place sand in the bottom of hampers, fraudulently increasing the weight, shall be mulcted to pay for a theatrical performance.

Second. It is agreed that we keep standard steelyards, and inflict the same fine on any of the union who keep fraudulent instruments.

Then follow other rules relative to allowance to be made for weight of hampers of various sorts, and different kinds of fish, and one requiring information to be sent to the office of the guild on arrival of a boat, and a manifest of the cargo, which if on inspection is found to be correct, receives the guild's seal, and the fish may then be purchased by the members. And, lastly, the tariff of charges is exacted from the fish-carrying boats. Ultimately, those charges are paid by the fishmongers, which they find a convenient mode of collecting the tax they impose on themselves for the common treasury. No member of the guild would presume to purchase a cargo of fish that had not been duly passed by the guild. A deposit of $3,000 is made by every fish-dealer into the guild treasury, as a guarantee of conformity to its laws, repayable on withdrawing from the association.

WÊNCHOW BLACKSMITHS' UNION.

This is of the class that comprehends both masters and journeymen. A meeting was recently convened for the purpose of increasing the price of their manufactures, consequent on the reduced value of dollars, and to establish a new tariff. It is curious to observe how Nevada's plethora of silver has deranged industry to the ends of the earth. The blacksmiths, like all who have a statement to make, introduce it with a preamble, setting forth reasons for action. They say:

"The metallurgic art existed in high antiquity [prehistoric]; in the Chou era vases and tripods [for religious use] were cast, as we learn from the book of odes; thus our manufacture has been followed for thousands of years, and traffic in its products has suffered no interruption to the present day. But recently, we who are engaged in casting pots and kettles and in forging iron utensils have discovered that, owing partly to depreciation of dollars, and partly to increase of public work, our by-laws, for protection, require to be more definitely defined [the 'public work' refers to a *corvée*, which in a mitigated form has come down from feudal times, exacting from artificers and laborers service at less than the current wages]. We therefore convened a meeting at the Palladium temple, and during the theatrical entertainment and feasting, we agreed on a new tariff of wages for work and price for our manufactured wares. [Trades-unions which, as in the case of blacksmiths and iron founders, are too poor to own a hall, meet in the city temple for deliberations, on which occasions a Thespian entertainment is provided in honor of the tutelary god, and a feast for the members, who, while enjoying the play and viands, discuss and decide questions relative to the interests of the craft.] Any infraction of the rules hereunto appended will be punished by inflicting a fine of a theatrical performance and three tables of liquor and viands."

Forty-four articles are enumerated; the price, the value of the iron, and of the labor bestowed on each article being separately stated.

WÊNCHOW CARPENTERS' UNION.

Another instance of resistance to the *corvée* system is furnished by the following manifests lately posted up in carpenters' shops:

"*Important Notification—Revision of Rules.*—Our trade is represented before the mandarinate by five head men [selected by the carpenters from their craft, who are recognized by magistrates, and on whom demands are made when repairs of yamêns are needed], who undertake public works. Heretofore they have conformed to rule, exacting one day each year for our employment for mandarins, for which one hundred coppers per diem was paid, and three meals, and in lieu of that service, an exaction of a hundred cash. But now there is a demand for additional service, which we refuse to render, or to pay money in lieu thereof, and there are none to perform repairs of the public offices. On this emergency the mandarinate have ordered a meeting at the Palladium temple, and during the theatrical entertainment and feasting, we agreed on a new tariff of wages for work and price for our manufactured wares. [Trades-unions which, as in the case of blacksmiths and iron founders, are too poor to own a hall, meet in the city temple for deliberations, on which occasions a Thespian entertainment is provided in honor of the tutelary god, and a feast for the members, who, while enjoying the play and viands, discuss and decide questions relative to the interests of the craft.] Any infraction of the rules hereunto appended will be punished by inflicting a fine of a theatrical performance and three tables of liquor and viands."

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their wages (in this place a common abuse), and for an increase of pay. Their preamble sets forth their inability to maintain their families through inadequate compensation for their labor; and adding that their toil requires an extraordinary amount of physical exertion; therefore they had met before the gods, whom they had honored by a play, and had come to the conclusion to make demands hereto affixed. These were an increase of pay, pay to the full amount, and their work to be weighed by steelyards of a certain standard. All these terms were agreed to, and are to be seen posted up in every copper-wire shop. Attached are the usual penalties.

WÊNCHOW SILK-WEAVERS' UNION.

The rules adopted in 1842 having fallen into disuse, they were revised in 1876, and printed, and enforced.

"It is agreed that members of the association shall work carefully and with their best skill, and pay for silk that has been damaged by bungling." Then follows a scale of wages for piecework, the various articles of manufacture being enumerated; being an advance on former rates.

Journeymen.—It is agreed that a hand who is employed by one manufacturer shall not surreptitiously work for another—penalty for transgressing, a theatrical performance and a feast for over ten. Pilfering silk from employers—to be expelled the trade; the purchaser to be fined a play and a feast for over ten. No employer shall engage a journeyman if that hand is in debt to his master; but when all debts are paid he is at liberty to enter the service of another; but an employer who clandestinely engages a hand from another shop shall be fined, as above.

At the beginning of a new year workmen are at liberty to make engagements in other manufactories, provided their debts are all paid to former masters. If they persist in leaving without a settlement, the trade-union shall pay his indebtedness, and no shop shall be allowed to employ him. In the case of journeymen who are dismissed from a shop while in debt to their master, the new employer shall make deductions from their wages until the debt is liquidated. No workman shall enter into business on his own account, nor into partnership until his debts are paid.

At the commencement of a year masters shall advance to journeymen [from two to four months] wages [the wages vary from $4 to $8 per mensem]. Nothing further is payable until that advance has been worked off.

Dyeing.—[Silk-weaving and silk-dyeing constitute a single trade. General dyers are not intrusted by silk-weavers with thread-silk for dyeing.] Weaving is to be taught first, and then dyeing. A theatrical performance is the penalty for disregard of this rule. No shop shall have more than one apprentice at dyeing at the same time.

Masters.—A workman who enters into manufacturing, and taking as partner a man out of the trade, shall make the contract for five years, during which period the partnership shall not be dissolved. A play and banquet is the penalty of contravening this law. At the expiration of five years, the parties may follow their own inclinations in the matter.

When a new shop is opened the proprietor shall subscribe 3,000 cash for temple purposes.

Manufacturers shall have but one member of their family learning the art at one time.

A shop of three looms may have two apprentices—not more.

No workman shall secretly avail of the assistance at work of any one not in the trade, nor privately teach any the art.

Quarrels among members are to be settled by arbitration. In a small matter the one in fault is to be fined in candles [for use in the temple worship], and for graver offenses the fines shall be a concert [vocal and instrumental music by five boys before the gods], but feasts shall not be imposed as a fine in quarrels. Fining an offender for quarreling to the expense of a banquet is not always conducive to harmony, as this union discovered.

The present advanced rate of pay shall suffer no abatement; any workman accepting less shall be punished.

Silk-weavers' apprentices.—An apprentice must begin by standing treat, giving a feast to workmen of the establishment. Two years are to be spent in learning to weave and three years' service as a weaver are to be rendered to the master, five years completing his apprenticeship [illegible]

tice wishing to discontinue learning the trade may leave, but he shall not be permitted to resume it.

Apprentices are required to be respectful to journeymen. At the close of his time an apprentice shall subscribe 1,500 coppers to the union for temple expenses.

WÊNCHOW MILLERS.

Flour mills at Wênchow are worked by hand. The millers of Wênchow state in their preamble that former regulations having fallen into confusion, each miller charging what he thought fit, thus bringing on damaging competition, they had now come to an agreement for the better governing of the craft. Sixteen mill proprietors constitute the union, which is under the control of a committee of four, changed every year so as to bring in rotation each member into office. It is the duty of the committee to confer at the close of each month with the trade and to fix the price of flour for the month ensuing. Any member who sells flour at less than the price agreed upon to be fined the cost of a play and a feast. No member is allowed to sell flour on credit to any person who is in debt to another member; that is, customers are not allowed to run up accounts with several establishments. No member to grind wheat except what he has himself purchased—not to grind another man's grain. The millers' union steelyards to be the standard for measuring. No abatement to be made in prices in favor of pastrymen and others who are large consumers of flour. Usual penalties for infractions. Assessments for the expenses of the union and other minor matters follow, concluding with the injunction: "Let not observance of these rules be a mere spurt at the outset and dawdling afterwards."

WÊNCHOW POSTAL COMPANIES.

Imperial posts exist exclusively for conveying official dispatches. The private correspondence of the country is carried by postal firms. These combine for the protection of their common interests and for maintaining a uniform tariff. At Wênchow above a dozen firms engaged in conveying letters agreed on a tariff with this preamble: "Our undertaking of sending letters containing dollars or notes admits no delay or error in delivery; besides, we are required to make all losses good, and while the responsibility is great the recompense is small. Moreover, the rules that existed among us prior to the commencement of steam communication became obsolete, and as the business increased offices were multiplied; all which render necessary the adoption of new rules and tariff on the basis of postal offices at Ningpo and Shanghai." To give some of the charges: 70 coppers to Ningpo; Shanghai and Canton, 100; Peking and Hankow, 200. Where much of the route is by land the charge is higher; for example, when water communication with Peking ceases, postage is double. Accepting less postage than the union has agreed upon subjects the offender to a fine of a play, feast, and a lot of candles for illuminating idol shrines.

WÊNCHOW BARBERS' UNION.

The humblest of the guilds (players excepted) is the barbers', which I here name, in that the association of this most needful class of artisans illustrates the utility of organization and combination as an elevating agency; their union having improved them socially by infusing into their body a degree of self-respect to which erst they had been strangers. On combining they discovered that they had wrongs to be redressed and rights to be vindicated, which in itself was salutary. Custom, as strong as the statutes of the Empire, interdicted their attendance at the literary examinations. It was regarded as sublimely audacious in barbers to demand such a privilege; its absurdity strained the risible faculty of the polite, appalled the learned, and agitated society generally. Local magistrates of every grade exclaimed "*non possumus.*" They boldly carried their appeal to the provincial capital. Yamên after yamên was closed to their admittance. Happily, the governor was liberally minded and penned a dispatch in which he showed that barbers were not included among play-[illegible]ictors, &c., who, with their descendants to the third generation, are not allowed [illegible] Having thus manfully disenthralled themselves, they [illegible] they placed a mural inscrip-

who violated a rule of the union that forbids ear cleaning during the last six days of the year (those being days when every man has his head polled, and there is no time to be devoted to ears), and another who shampooed a customer were mobbed by their fellow shavers, and their tools, furniture, and paraphernalia thrown outdoors, street arabs coming into immediate possession of the articles ejected.

GENERAL REMARKS ON TRADES UNIONS.

Hours of labor—Holidays.—Unions whose craftsmen are paid by the amount of work performed are not allowed to labor beyond certain specified hours. Weaving, for example, is not allowed after 9 o'clock at night. There are no laws respecting the hours of labor of those who work by the day; custom adjusts that. Carpenters work eleven hours in summer and nine hours in winter; masons half an hour longer. Chinese artisans are a reasonable class of men, and never think of demanding uniform wages for inferior and superior mechanics; and employers being amenable to reason, laws do not favor aggression on the part of the wage-paying class; consequently there are few collisions between capital and labor.

Perhaps Wênchow tailors may be taken as an illustration; an average workman will receive $5 per mensem and his food, a wage that enables him to maintain a family with the necessaries of life.

It is the unhappy lot of the Chinese proletariat to toil in a Sabbathless land, in which the holidays that are allotted to him are poor compensation; the last five days of the year, the first ten days of the new, and four other interspersed through the year are his only exemptions from labor; yet is he not only contented but cheerful.

Apprentices.—Many of the unions rigidly restrict the number of apprentices of the master. Some, as goldbeaters at Wênchow, allow none but sons and nephews of workmen or masters to leave the trade. The unutterable meanness that moves pseudo-civilized men in the West to debar women from occupations for which they are competent is, as might be expected, rampant in China. Rules of certain unions (*e. g.*, silk weavers) expressly forbid their members teaching or employing women; needle makers make exceptions in favor of the wives and daughters of members of that craft, who are allowed to acquire the difficult art of drilling needle eyes, the instrument employed being identical with the ingenious "pump drill" used by North American Indians; but should either ever marry out of the union, employment would be withheld. Apprentices serve in some trades for three and in others for five years. At times, a premium is demanded; in all, food and lodging are alone provided, clothes being found by parents. No master can employ an apprentice who has not served out his full time. Before becoming a journeyman he must stand treat for a theatrical performance. In some trades fees are required for the general purposes of the union from apprentices commencing and concluding their period of service.

General penalties.—A play, three tables of viands, and liquor.

A Wênchow capitalist who sets up a gold-beating establishment may take a son or nephew as apprentice. Tin-foil beaters have similar rules, and so rigid are the rules that infractions are unknown.

Rules for preserving the honor of unions.—In some unions restrictions are imposed on its members by the union respecting the quality of work to be turned out. The Kittysols Union* states in its regulations that the trade had suffered depression from deterioration of paper umbrellas that had been put upon the market, and their export having consequently fallen off, it was agreed that kittysols should henceforth be of a uniform quality and fixed price. Dealers now who put on the market defective articles are mulcted to the same extent as if guilty of disposing of wares at less than the established tariff of the trade. It appears from by-laws of the Pewterers' Association that their trade suffered from a like cause, and new rules were adopted, to which all are compelled to conform. Any pewterer who alloys a tin article with lead is amerced by the trade as surely as if he sold articles for less than his fellow craftsmen. In this attempt to elevate the character of their calling they are public benefactors.

Very excellent are the regulations of the dyers' trade union, whose preamble declares that "Business requires for its proper administration that there should be equitable rules and good faith in their observance; and that owing to the fluctuating price in indigo, it is to the interest of all concerned that charges for dyeing should be fixed twice a year; that during the semestral period

change whatever. It is also provided by that craft that accounts shall be settled at each of the three periods into which the year is divided; which means not only that master dyers shall owe no man, but that all moneys due him shall be collected—long accounts being inimical to the common interests of the craft.

Strikes.—Strikes are infrequent, and not illegal. There does not appear to have been a time in industrial history when laborers might not lawfully combine to raise wages and regulate the hours of work; and no harm has resulted from that liberty; for the code, in interdicting "monopolizing markets," is calculated to prevent abuses of that liberty; but a strike for increase of wages on the part of workmen in the public service is severely dealt with as mutinous. Several cases of that description occurred on the Grand Canal in 1826–'39; boatmen of junks that were conveying imperial rice having been beaten and banished for clamorously demanding higher pay (刑案匯覽 *Hsing-an-hui-lan*). Resistance to *corvée* may be classed among strikes. I once witnessed resistance on the part of a cooper to an unjust demand. I saw the poor fellow at the gate of a magistrate's yamên, just after he had, with a cleaver, held in his right hand, severed his left at the wrist, rather than perform the half-gratuitous labor that was required of him.

A strike of journeymen for increase of wages rarely fails to be successful, for if it goes so far as to endanger public tranquility, magistrates interpose, and the strikers being too numerous to be flogged and too poor to pay for the mulcting operation, hands are laid on the masters, who can always be had when fleecing is feasible; and they, to avoid such result of a strike, wisely surrender; a state of things, however, of which workmen take no unfair advantage.

Sectionalism.—Clannishness is a Chinese characteristic, which renders sectionalism a common fault. Many occupations form unions, membership of which is restricted to fellow townsmen. Fish-hook making at Wênchow is restricted to men of that trade who belong to Fukien, and no Wênchowese is allowed to acquire the art. Needle-makers' rules allow only Taichow and Kiangsu needle makers to work at Wênchow (those workmen excelling in the craft). Taliow-chandlers and tin-foil beaters are remarkable for sectional jealousy. Those craftsmen will not work with men of their trade who happen to belong to another prefecture; as it is, though laboring in different establishments, they indulge in frequent and fierce feuds. At Wênchow, gold beating is monopolized by artisans of that craft from Ningpo; their trade union forbids instruction in gold beating to Wênchowese. Should an employer transgress that rule, it is decreed that journeymen shall meet to enforce the penalty which their law inflicts on such offenders. The mercantile guild at Wênchow excludes forever those from a region in their prefecture, because when it was instituted, eighty years ago, men from that place declined to take part in its organization.

"*Boycotting.*"—None of the by-laws of trades that have been published, nor those of chambers of commerce, expressly provide for "boycotting" others than members of their own combination, yet in practice it is carried out thoroughly to the extent of their ability; nor is membership always obligatory, and is often treated as a privilege: yet in point of fact no one in their line of business can with impunity refuse to act with them. Recently a merchant at Hankow invested in drugs to sell at his private residence, but the associated druggists caused him to be summoned to the magistrate, and to pay $500 for a license, and to join the guild. Non-compliance with the rules entails utter and irremediable ruin.

TRADE-UNION TRUCULENCY.

As regards handicraft associations, their unions are most exacting and arbitrary; no recalcitrant members can escape punishment, nor can any obtain employment who are not in good standing for fidelity to the craft. Ordinarily, mild measures are resorted to; the offending member is waited on and invited to repair to a tea house. Resistance would be useless. He goes, and is there under arrest, surrounded by successive relays of fellow craftsmen, until he pays the amount for which he is [illegible] or until friends or employers advance money to satisfy the demand. It is [illegible] occasions seldom exist for inflicting cruelties

punishment because the crime of murder cannot be brought home to any one of the perpetrators, and at this time (1872) prevailed the more, from the fact that men then living could tell of a magistrate in the northern part of Kiangsu who suffered that awful death for withholding food in a famine, and it was believed (erroneously no doubt) that none of the conspirators were executed.

Gold leaf was needed to an unusual amount for the Emperor. One of the craft represented to the magistrate that if he were allowed to take a number of apprentices the work would be greatly expedited, and having obtained permission, he proceeded to engage a great many apprentices. The "scoundrel," as our author styles him, violated in a flagrant manner a law of the trade which disallowed an employer to take more than one apprentice at a time. His conduct infuriated the craft, and the word passed round "Biting to death is not a capital offense." One hundred and twenty-three of them rushed on the miserable man, each taking a bite. Death soon relieved the victim of fiendish rancor. To make sure that none shirked duty on that occasion, no one was allowed to quit the shop whose bloody lips and gums did not attest to his fidelity. The murderer who took the first bite was discovered and beheaded.*

Trades unions are essentially anti-free-trade institutions. To some free trade means utter extinction, and naturally they are impatient to avert that result, succeeding only in driving the industry elsewhere—*e. g.*, combinations of associated labor at Canton are causing the transfer of mechanic arts to Hong-Kong, illustrations of which are furnished by the papers of that colony. Native merchants imported from Birmingham a quantity of thin sheet brass for manufacturers of brass utensils at Fatshan, throwing out of employment a class of coppersmiths whose business consisted in hammering out the sheets heretofore imported in a thick form; but the trade struck to a man, would have none of the unclean thing, and to prevent a riot among the rowdiest class of the rowdiest city in the Empire, the offending metal was returned to Hong-Kong. Further, a Chinese from America the other day imported thence some powerful sewing machines for sewing the felt soles of Chinese shoes to the uppers, but the native sons of St. Crispin destroyed the machines, preferring to go on as their fathers did, while the enterprising Chinaman returned to Hong-Kong a poorer and sadder man. Again, some years ago a progressive Chinaman set up a steam-power cotton mill, only to be made useless by the very simple plan of the growers refusing to send in a pound of cotton. Filatures from France, effecting not only a wonderful saving in time and money, but improving the quantity and quality of the output of silk, succeeded at Canton for a while, and were introduced latterly by Chinese capitalists into the silk-rearing districts, only to be destroyed and wrecked by the country folk.

GUILD PENALTIES.

It will be observed that guilds of every class have for sanctions against infringement of their rules fines to be paid by bearing the expense of Thespian entertainments and banquets. As this is a peculiar characteristic of China's social life, it merits a word of explanation. Confucius refers to an ancient custom which compelled archers who missed the target to take wine; and we learn that on the conclusion of hostilities between two contending states, a feast was provided by the loser for the diplomatic representatives of the winner on the occasion of the conclusion of treaties of peace. Convivialities of the table, or mat rather (for it was only in times comparatively recent that Chinamen "sat with legs hanging down," that is, used tables and chairs), have always been employed by them as means for accomplishing public ends. In the feasts annually given by the mandarinate for meritorious aged men, the sage recognized the ceremony as affording a lesson in government by illustrating deference due to seniority; and it taught the duty of subordination to rank.

It is not unlikely that the blending of conviviality and punishment was a device of men of yore. This ingenious mode of mitigating sanctions, rendering them conducive to urbanity and harmony, is certainly no modern invention. Not only are festival penalties inflicted on derelict and refractory members of guilds and trades unions, but on offenders generally. When quarrels arise, umpires intervene or are called in, who condemn the aggressor to go to the expense of a play and a dinner; the feast taking place in a gallery affording a view of the stage and play (the guests being the arbitrators, the two litigants, and select friends), while the [illegible]

treated with decorous politeness, a thing so dear to this ceremonious people. Philosophers cannot but admire this form of social jurisprudence, which is more likely to be commended than generally imitated by Westerns.

CO-OPERATIVE LOAN CLUBS,

Or ready-money associations, although not comprehended in the term guild, merit a paragraph to illustrate yet further the "clubable" character of the Chinese. Every Chinaman, almost every Chinawoman, belongs to or has belonged to one or more associations, exclusive of the secret societies by which the Empire is honeycombed, yet there are no mutual aid societies for sickness. Charity finds expression by certain benevolent services of compatriot guilds, and by eleemosynary societies, but for temporary loans to the impecunious there are associations of a description entirely unique. A man in immediate need, say, of $50, induces nine friends to unite with him in forming a ready-money club, each subscribing $5, which with his own share meet his necessity. He has the use of the common fund for one month, when the members meet and decide, commonly by throwing dice, who next comes into possession of the money. In that manner each member in turn has the use of the fund, when it is either returned or the arrangement renewed. The sum subscribed varies in amount from less than half a dollar to hundreds; and the periods of use of money vary from less than a month to a year or more. Sometimes interest is paid in the following manner: the first of $50 receives but $49, each member deducting a dime for interest; the borrower for the second month receives $49.10, and so on to the last. Failure of payment from any cause is sure to be made good by the borrower's family. Great varieties exist in the constitution and working of these clubs. M. Simon gives details respecting seven money clubs.

REFLECTIONS.

I have been unable to discover that trade unionism in China has been on the whole inimical to the public weal, while its utility is obvious from several aspects.

I.—Combinations of employers against society, by fixing a uniform value on the products of manual labor, neutralize the tendency which unrestricted competition has to reduce the proletariat to abject dependence. Necessity is not laid on masters to extort a maximum of wages, while combinations of workmen check the sordidity of masters. It is probable that what society might profit by unrestricted competition it would lose by impoverishment and degradation of its humblest members, who sometimes are the fittest to survive in the struggle for existence.

II.—Obvious moral advantages accrue from the affiliation of workmen for the promotion of legal objects. Self-respect and self-restraint are cultivated, which is shown by the result of a combination of Wênchow barbers. Nor is the establishment of an unalterable scale of wages for numerous articles for sale in shops, which *generally* justifies what is often inscribed on signboards—"Only one price"—a trifling result of combination, saving as it does much mean cheapening on one side of the counter and brazen mendacity on the other.

III.—We have seen certain trades mutually binding each other under penalties to turn out faultless work; the result is that all the commodities found in shops of those particular wares are always of standard quality and uniform price.

IV.—We have seen also that these institutions are prone to resort to tyrannous proceeding, and are capable of committing atrocious crimes; but where the administrators of the law are honest and intrepid, those evils are measurably restrained—public opinion also exercising wholesome restraints, both as regards workmen and employers.

GENERAL CONCLUSION.

In the foregoing survey of Chinese mercantile and industrial life, the most notable feature observable is their capacity for combining, which is one of the chief characteristics of Chinese men. To them organization and combined action is facile [illegible] authority and law-abiding instincts. Their [illegible] results from *habits*

SUPPLEMENTARY NOTES.

AGRICULTURAL LABORERS.

What has been said above relates to a limited portion of the toiling multitude—to those who are competent to organize for the common protection. It will not be considered wholly irrelevant to the subject under discussion if I add a few paragraphs respecting the masses who form the substratum of the proletariat—the field hands into whose minds the thought of combination never penetrates.

The subject well merits a separate treatise, instead of a page or two, for its elucidation. It has been proposed to the British Parliament to institute inquiries in every civilized country to obtain information respecting wages, for purposes of comparison. The following facts respecting this part of China are consequently in order. But first I must remark that, without a uniform standard of comparison, statistical tables of compensation for labor can be of little practical use; such a labor gauge I suggest for general adoption.

Let a scale be graduated by years from eighteen upward for indicating the age which a field laborer must attain when by his own labor he can purchase enough of the soil that he cultivates to afford him a maintenance; and then the number of years further required to acquire as much additional land as shall support him as a married man. Let it be considered that a short period in which that condition is attainable denotes prosperity, and a protracted period a condition of the state which is adverse to its best interests. Gauged in this manner, it will be found that China occupies no mean position among civilized states.

Six parts of the rice region of Wênchow are owned by non-cultivators, and four parts are tilled by owners of the soil. Tenant farmers pay landlords one-half of the rice crop—one acre yielding over 19 piculs, giving to each about $21, the owner paying the land tax, $1.80—every other expense being paid by the farmer, to whom, however, the intervening crops all belong, which are worth $15; consequently his share of the product of the farm is $39. The proprietor, after deducting expenses, receives something less than 5 per cent. interest on his investment. Coming now to the field hand whom the farmer hires, we arrive at the substratum of labor. The average wages of an able-bodied young man is $12 per annum, food, straw shoes, and free shaving. Deducting $4 for his clothing, he saves $8 annually—or may do so. Ten years' savings will enable him to buy one-third of an acre of land (value per acre $150) and necessary implements, by which he can attain by his own labor a subsistence. In twenty years he can become possessor of two-thirds of an acre and one-third of a buffalo, and with six years more saving he may purchase a wife, with whose assistance he can maintain himself on his own land, in his own hut, and rear children. Thus, in twenty-six years from zero, a Chinese farm laborer may obtain what to him is a competence. Ascertain now the number of years in which the same result might be accomplished in all lands, and we shall have, approximately, their relative wage rate. This labor gauge cannot, of course, embrace the important factors of decency and comfort in living, nor the death rate, which with other matters pertain to a full consideration of the subject. The relations between agricultural laborers and between landlord and tenant give rise to no ill will; all are satisfied by arrangements developed in long bygone ages. Few are so poor as not to become possessors of soil. So minutely is land frequently divided, holdings being as small at times as a sixth of an acre, or less—owned, it may be, by a widow, or a coolie, and let out to the cultivator of adjacent fields for half the yield of rice.

AGRARIANISM.

Having referred to the size of farms, I may be allowed to digress further, and add a few remarks respecting attempts that have been made to prevent the accumulation of land by capitalists. A modern writer cites a passage from the Analects, in which Confucius says: "In equal [allotments of land, such as existed in ages not long antecedent to his own] there were no poor," a construction which I am told is sustained by certain commentators. That there were in those early days restrictions on the transfer of land which prevented it from being wholly monopolized by the wealthy there is no want of evidence.

"Since the Han and Yang eras, the subject of [illegible]

was to be escheated, and the offender punished. Land thereon became cheap, but before the period expired those ministers were displaced by Tung Hsien (the Emperor's catamite) and another creature of the same stamp, who reversed the plan of their predecessors, and that endeavor to prevent monopoly in land was frustrated.

Again an attempt of the same nature was made; this time by the usurper Wang Wang, A. D. 9-22, who, as a part of his policy to restore the customs of the early Chow and preceding dynasties, enacted that the limit of land which an individual might hold to be something less than 17 acres, the excess to be divided among his clan or neighbors, without compensation, and that limited amount of land not to be alienable or to be transmitted to heirs.

Death was the penalty which was affixed to violations of the edict. Three years later the attempt to prevent pauperism and to promote contentment had to be abandoned; offenders against the law had become so numerous that the sanction could not be enforced, and people were again allowed to buy and sell and bequeath land without restrictions as before. Land laws which were adapted to an early stage of civilization were not conducive to promote the common weal at the comparatively advanced stage which society had then attained.

An emperor of the Northern Wei dynasty, Hsiao Wen Ti, A. D. 471-79, was moved to compassionate the condition of his subjects whom violent and wealthy men had dispossessed of their land, which he proceeded to restore to them, allotting to every man about 7 acres of arable soil, and the same amount to each woman, imposing only certain salutary conditions—to wit, within three years each allotment should be found to have 1,900 mulberry, 100 jujube, and 60 elm trees, when those portions of the lands which contained trees were to become entirely the property of the cultivator, while the treeless rice fields were to revert at the cultivator's death to the state, and punishments were inflicted on idle or dissipated cultivators. There seems to have been good grounds for dispossessing landlords of territory on that occasion, and it is likely that for several years uniformity of the acreage of farms was maintained.

I have no work of the Tang period to search for verification of our author's statement that the subject was considered at that era.

Subsequently, however, an account is given in the general history of an endeavor that was made in that direction, which was attended with disastrous results. It was the work of Wang An-shih, an erudite scholar, an accomplished writer, whose poetry is still admired, and who was the originator of the style of composition which rules at the literary examinations; who, moreover, was a man of suave address, of winning manners, and persuasive eloquence; upright and benevolent withal, but lacking one endowment—in which, unfortunately for his own fame and the welfare of the state, he vainly supposed himself to possess in an eminent degree—statesmanship; yet he aspired to the premiership. Confiding in the rectitude of his motives, he was opinionated, and would brook no interference. Plenary power was accorded to him by Chi Tsung, A. D. 1068-86, for carrying out his schemes for regenerating political society, the chief of which was to advance Government money to farmers at 2 per cent. interest, with the design of stimulating agriculture and increasing the revenue. The treasury was emptied for that purpose, but the channel through which the money was to be conveyed to the plowmen absorbed it all on the passage—that is to say, the officials stole it, which, with other abuses connected with the measure, caused distress to men of means and impoverishment of the people.

Under the next reign a capable and practicable minister came into power, who reversed the revolutionary plans of Wang. From that time to the subversion of the dynasty by the Mongols the country had scant repose.*

Agrarianism was not a part of Wang's plan, but the renationalization of land still had advocates, one of whom, Chi Shun-tao, premier of Li Tsung, in 1260, an avaricious, unprincipled minister, aimed to enrich the Emperor and himself by despoiling landowners.

It was decreed that all officers who possessed more than 17 acres of land should sell the excess to the Emperor. Six departments in Chêkiang and Kiangsu alone yielded about 600,000 acres, which, however, was not all derived from the mandarins everywhere compelled private landowners to submit to the spo- resistance that in the next reign the unpop- legal infringement.

and that, by way of experiment, the change should be first introduced into the department of Huian. Chien Lung in reply showed the fallacy of the memorial and its impracticability—it would not lessen the number of large landowners, seeing that the prohibition could be easily evaded by nominally distributing the excess of land among brothers and sons, and it could prove of no use to the landless; so far from the proposed change being of public advantage, it could not fail to be pernicious; yet, as the memorialist had named Huian as a fit department in which to make the experiment, he, the Emperor, had consulted the governor-general of Kiang-su on the question, whose views on the infeasibility of the scheme were the same, as, in fact, were those of everybody. "Let the subject be dismissed from further consideration."

By the time that the contract social was excogitated, philanthropic political economists in China had abandoned hope of meliorating the condition of the industrial classes by legislative infringements of natural social laws; experience had convinced them that such interference entails greater evils than those which it is proposed to redress. While the land is regarded as imperial—that is, national—property, it has become to all intents private, and absolute proprietary rights are fully conceded;* but as primogeniture and entail are unknown (serfage nor villenage ever shackled the Chinese), and there being no institutions which specially favor the accumulation of land, the monopoly of soil by capitalists is not so extensive or general as to give rise to popular discontent. The *métayer* system which prevails is equitable, and small holdings by peasants being common, and land being within reach of such a large portion of the population, neither agrarianism, socialism, nor communism is likely to agitate the political atmosphere of the middle empire.

CONTENTMENT OF THE PROLETARIAT OF CHINA.

To the sociological student there are few aspects of greater interest than the contentment that he observes among the teeming millions who in China press so closely on the means of subsistence. Civil wars, it is true, have been numerous, and insurrections are of constant occurrence, but such risings are directed only against maladministration; they are never revolutionary.

How has it come to pass that such a dense proletariat should through so many ages contentedly accept their situation? No standing army is required to compel submission to the laws! Manhood has not been crushed out of them by despotism! What, then, is the explanation? It is the result of a legitimately begotten conservatism—a conservatism whose sire was radicalism; that is to say, when, more than a score of centuries ago, feudalism and hereditary rule were abolished, there was a radical revolution (China's sole revolution), which opened the way to rank and power of every qualified man. By that sweeping change the Chinese became in the course of time a leal-hearted, conservative people. It was then that the foundation of China's growth and greatness were laid; the corner-stone being equality before the law. No institution or caste bars the way of the ambitious to take part in the government of the Empire. No rancorous feelings are fostered against the affluent and powerful by the poor; the disparity excites no hostility; like the student who fails to mount the first degree towards official distinction, he accepts the situation as a decree of Heaven, and bears no grudge against the successful in life's race. The laborer can descry no brand on his son's brow indicative of inferiority and exclusion from positions to which the sons of the great aspire. The air of the examination hall is as free as the air of Heaven, and there, in competition, laborers and rich men's sons are on an equality. Herein lies the secret of the success of Chinese administration, the explanation of the contentment of half-starved artisans and laborers; a system that has stood the test of ages, which is a sure prophylactic against the gravest ills that states are heir to, and which merits the most serious study of cultivators of the science of government.

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*When regions have been depopulated by civil wars the Governments have restocked them as soon as possible with colonists, as was recently the case after the devastations of the Taiping rebellion; the land thus allotted becoming salable and bequeathable under such conditions, population increases in geometrical proportions until it overtakes the means of subsistence, when it becomes stationary, which has long been the case at Wênchow, where centuries of quiet have been enjoyed; the number of inhabitants to a square mile rivaling that of Belgium. Natural causes came into operation (here aided by female infanticide), which maintains a balance between the capacity of the soil and birth and death rate.

AUSTRALASIAN GOLD MINING.

REPORT BY CONSUL GRIFFIN, OF SYDNEY.

The total yield of the gold mines of Australasia for the year 1886 is estimated at 1,365,981 ounces, valued at $25,883,884, against 1,443,960 ounces, valued at $27,361,603, for the year 1885. With one or two slight exceptions the yield has steadily declined in every one of the colonies for the last ten or twelve years. The output of Victoria for 1886 was smaller than that of any previous year since the discovery of gold in that colony. The yield was 70,112 ounces less than that of 1885, and nearly 300,000 ounces less than that of 1876. The yield in New Zealand for 1886 was 10,272 ounces less than that of 1885, and 90,288 ounces less than that of 1876. The product in New South Wales declined from 100,699 ounces in 1885 to 98,446 ounces in 1886; South Australia, however, increased her yield from 18,327 ounces in 1885 to 21,115 ounces in 1886. There has also been a slight increase in Queensland, say from 308,348 ounces in 1885 to 310,111 ounces in 1886. The total yield in Australasia since the opening of the mines in 1851 to the present time is estimated at 80,808,981 ounces, valued at $1,582,500,000. This is an enormous yield, but it is not as large as that of the United States by $146,000,000. The truth is, the United States produce one-third of all the gold in the world, and more than one-half of the silver.

During the last four years the value of the world's annual product of gold has been about $100,000,000; the United States taking the first rank, Australasia the second, and Russia the third.

The subjoined table shows the quantity of gold produced in the Australasian colonies for each year since 1876.

Table showing quantity of gold produced in Australasia from 1876 *to* 1886, *inclusive.*

Year.	New South Wales.	New Zealand.	Queensland.	South Australia.	Tasmania.	Victoria.
	Ounces.	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*
1876	155,156	317,365	314,776	9,858	11,107	963,760
1877	122,629	371,685	353,266	11,811	5,777	809,653
1878	117,978	310,486	283,592	10,746	25,240	775,272
1879	107,640	284,100	281,552	14,251	60,155	758,947
1880	116,751	303,315	228,120	13,246	52,595	829,121
1881	145,532	250,683	259,782	16,970	56,693	858,850
1882	129,322	230,893	230,090	15,668	49,122	898,536
1883	122,257	222,890	193,994	15,938	46,577	810,147
1884	105,933	246,392	261,824	21,445	42,340	768,618
1885	100,667	237,371	308,340	18,327	41,241	735,218
1886	98,446	227,079	310,111	21,115	41,361	665,196

It will be seen from this table that Victoria surpasses all the other [illegible] of the precious metal, and that New Zea[illegible]sition to Queens-

As far back as 1787 it was reported that gold had been found in Australia by the convicts who had been transported here by the British Government, and although little faith was placed in the report at that time, it is now believed that gold was actually discovered by them, and that the authorities refused to encourage a further search for the metal, lest it might interfere with the proper discipline and government of the criminal classes.

In 1839 Count Stirclecki found auriferous pyrites in the Wellington district, New South Wales, but was unable to prevail upon the governor to issue a proclamation announcing the discovery. In 1841 the Rev. W. B. Clark found gold "*in situ*" in the granite formations of the "Vale of Clywd." Sir Roderick Murchison in 1844 stated in the Journal of the Royal Geographical Society, that there were gold-bearing rocks in Eastern Australia, similar to those in the Ural Mountains. In 1848 Mr. F. W. Smith, of Sydney, found gold and offered to reveal the locality to the Government upon the payment of £250 ($1,216). The governor of the colony, although not accepting the offer, stated that if Mr. Smith would rely upon the liberality of the Government, it would see that his reward was in proportion to the value of his discovery. In February, 1851, Mr. E. H. Hargreaves, who had recently returned from California, as he stated, expressly for the purpose of searching for gold, succeeded in finding that metal at Summer Hill and other places in New South Wales. Mr. Hargreaves at once revealed the locations to the Government, and was handsomely rewarded for his services. In the same year gold was found in payable quantities at Clunes, Ballarat, Mount Alexander, and other places in Victoria.

The select committee of the legislative council of that colony, appointed for considering the claims to rewards for gold discoveries, reported that the Hon. W. Campbell found gold in March, 1850, but concealed the fact until July 6, 1851, the date upon which gold was found in the same colony by a Californian miner, Mr. James Esmond. About the same time the famous gold fields of Ballarat were discovered. Thousands of people from all parts of the world now flocked to the Victoria mines, and to illustrate the effect of the discovery of the precious metal upon the population, I will mention that Victoria increased the number of inhabitants from 55,000 to 260,000 within a period of only fourteen months.

AUSTRALIAN NUGGETS.

The first large nugget found in Australia was called the "Brenner Nugget" and weighed 364 ounces, but this was shortly afterwards eclipsed by the discovery of the famous "One Hundred Weight" nugget at Bathurst. This nugget consisted of three pieces, each of which weighed about 60 pounds. The total yield of the pieces was 160 pounds of Troy gold, or 1,272 ounces. In 1858 another large nugget, weighing 1,182 ounces and 7 dwt., was found near Burradong, New South Wales. It assayed 87.40 per cent. and was valued at £4,389 8*s* 10*d*. To the colony of Victoria belongs the credit of having produced the largest nugget ever found. It

Victoria, 1858 weight 2,217 ounces 16 dwt; the "Viscount Canterbury Nugget," found at John's paddock, Berlin, Victoria, 31st May, 1870, at a depth of 15 feet, weight 1,105 ounces; "the Precious Nugget," found in Catto's paddock, Berlin, Victoria, 6th January, 1871; "the Kumton Nugget, Catto's paddock, Berlin, Victoria, 17th April, 1871, weight 7,018 ounces; "the Schlem Nugget," at Dunolly, Victoria, 11th July, 1872, weight 538 ounces.

DEVELOPMENT OF THE MINES.

The greater part of the gold obtained in the Australasian colonies is from quartz mining. In Victoria the proportion obtained from that source is nearly two-thirds more than from alluvial mining. That colony in 1885 produced 453,400 ounces from quartz reefs and 281,818 ounces from alluvial deposits. These figures show a decline of 17,685 ounces from quartz reefs and 25,715 ounces from alluvial workings from those of the previous year. Mr. Hayter the Government statist of Victoria, states that in proportion to the number of mines engaged in quartz and alluvial mining the yield of gold from the former is frequently more than twice as large as that from the latter. It should be remembered, however, that only one-fifth of the steam-mining machinery of the colony is employed for alluvial workings, the remaining four-fifths being used for quartz reefs.

Quartz mining in New South Wales is not as profitable as in other parts of Australasia. Indeed, with the exception of a few localities, the veins in New South Wales have not been worked to any great depth. The mining heretofore carried on has been principally confined to the workings of river beds and shallow alluvial claims. The poor success which has often attended the workings of quartz veins is attributed principally to inexperience and to the absence of the right kind of ore separators and other mining appliances. The deepest gold mine in New South Wales is at Adelong, 273 miles southwest of Sydney, and is not more than 900 feet in depth. The reef is about 18 inches wide and yields about 2 ounces per ton. In Victoria there is a mine 2,409 feet deep, and some fifteen or twenty others are worked at a depth of over 1,700 feet.

The following is a list of ten of the deepest mines in Victoria:

Name.	Location.	Depth.
		Feet.
Moonlight Company	Stawell	2,409
Lausell's mine	Sandhurst	2,040
Victoria and Pandola Company	Sandhurst	2,000
Newington Company	Pleasant Creek	1,940
North Old Chum Company	Sandhurst	1,841
Prince Patrick Company	Pleasant Creek	1,830
Great Extended Hunters Company	Sandhurst	1,820
Crown Cross United Company	Pleasant Creek	1,815
Victoria Reef Quartz Company	Sandhurst	1,793
	Pleasant Creek	1,770

The yield of gold to the ton is now believed to be greater in Queensland than elsewhere in the colonies, although Dr. Hector states that the average is very large in New Zealand. In some places in the latter colony there has been as much as 600 ounces to the ton. The value of such a reef, says Dr. Hector, may be better estimated by those not conversant with the subject when it is stated that one-half an ounce to the ton is, in most cases, a profitable return. Dr. Hector is of opinion that gold mining in New Zealand is still in its infancy, and that it only awaits the judicious application of capital to extend to vast proportions.

At Stawell, in Victoria, the yield of gold from 2,306 tons of quartz, from a depth of 1,200 feet, averaged 8 dwt. per ton; 8,273 tons at Ballarat, same colony, at depths varying from 590 to 1,205 feet, averaged from 5 dwt. to 8 dwt. 19 grs. per ton; 87,347 tons at Sandhurst, at depths of 500 and 1,306 feet, from 7 dwt. 1 gr. to 2 oz. 6 dwt. and 14 grs. per ton; 20,521 tons at Castlemain, at depths varying from 300 to 745 feet, yielded from 6 dwt. 11 grs. to 6 oz. 18 dwt. 1 gr. per ton; 31,987 tons at Marysborough, at depths from 300 to 820 feet, gave a yield from 5 dwt. to 3 oz. per ton; 22,727 tons at Stranger's Creek, in Gippsland, at depths varying from 300 to 723 feet, yielded from 17 dwt. 23 grs. to 1 oz. 17 dwt. 1 gr. per ton, and 5,224 tons at Beechworth, at depths varying from 300 to 600 feet, yielded from 4 dwt. 17 grs. to 17 dwt. 2 grs. per ton.

Gold is believed to exist in large quantities in Western Australia, the largest colony in the group, but as yet very little has been done to develop the mines there. The rush to the Kimberly district last year was unprecedented since the influx to the Palmer gold fields in Queensland, but unfortunately the mines did not turn out as well as expected and much suffering was entailed upon the illy-advised persons who flocked there. Mr. R. T. Hindman, the Government geologist of Western Australia, who has traveled extensively in the Kimberly district, has recently prepared a sketch map showing the geology of about 100,000 square miles of that country. He states in a report accompanying the map that the wide-spread area of the carboniferous rocks in the district are of the highest interest to geologists, and that he was fortunate enough to discover a formation hitherto unknown to the colony, viz., the Devonian. These rocks, resting on the metamorphic beds of the Silurian, cover a very large space. Another very interesting discovery was a great mass of basaltic rock, which was traced for more than 100 miles, forming an extensive plateau 2,000 feet above the level of the sea and covering an area of 3,000 square miles. The auriferous country he passed through comprises an area of 2,000 square miles, and is traversed by the Margaret, Mary, Elvira, Panton, and Ord Rivers. The formation is principally Lower Silurian slate and schist of various kinds, traversed by an enormous number of quartz reefs. Mr. Hindman also reports that the river valleys and flats are in many places covered with extensive deposits of quartz gravel and drift, the quartz being divided from the denudations of the reefs. He says that he has never failed to find amongst the gravels good colors of gold and of an encouraging character. Very often good colors were obtained in

stacles in the way. Important discoveries of the metal were found in 1886 at Kangaroo Island in that colony. The stone averaged about 16 dwt. of gold to the ton. Both quartz and alluvial mining are carried on at Eictrunga, Blackwood Gully, Myponga, Hahudroof, Ulooloo, Waukariuga, and Manna Hill. The gold fields of Tasmania have also been imperfectly developed. According to a recent report of the under secretary for mines of that colony, the indications are favorable for the coming year. The gold of Tasmania is said not to be of such uniform quality as in other parts of Australasia. The product of the Beaconsfield mine is worth £3 15*s.* ($18.24) per ounce; at Golconda and Dennesom £3 10*s* ($17.03) per ounce, but that from Lefeog, Fingal, and Mangara is worth £4 ($19.46) per ounce. A nugget weighing 48 ounces was unearthed at the west coast last year. The largest ever produced in the colony was found in 1883; it weighed 243 ounces and 1 dwt.

The conditions under which gold is found in Australasia are precisely the same as in other countries. The Australasian metal, however, is believed to be of a higher standard than that produced elsewhere, and in some places, for instance, Mount Morgan, Queensland, it may be said to be absolutely pure.

It has been stated by Lock, Percy, Liversedge, and other authorities on metals, that no gold has ever been found in nature unalloyed with silver, but Dr. Leibius, of the Sydney mint, who has very kindly aided me in the preparation of this report, says that considerably over 60,000 ounces of gold from the Mount Morgan mine has been found to be free from silver with the exception of a minute trace. He says, further, that it assayed 99$\frac{7}{10}$ per cent. of gold; the rest was copper with a trace of iron. "The Mount Morgan gold," says Dr. Leibius, "is, as far as I know, the richest native gold hitherto found." The richest gold next to this comes from Victoria and assays 96 per cent. Mr. F. B. Miller, the inventor of the chlorine process employed in the Australian mints for refining gold, and to which I shall refer in another part of this report, is very decided in the opinion that the nearer we go northward in Australia the more silver the gold contains. He cites in support of this theory the statement that the average fineness of Victorian gold is 96 per cent.; that of New South Wales, 93 per cent.; and Queensland, 87 per cent. The Mount Morgan gold forms a striking exception to this rule. The Mount Morgan mine is now said to be the most valuable mining property in Australia. It is situated about 26 miles from Rockhampton, on the Dee River, in Queensland. The place of deposit is in the center of a hot spring or geyser. The stone produces about 3 to 12 ounces of gold per ton, and it is estimated that there are more than a half million tons at the mine accessible for crushing. The mine was discovered in 1882 by three brothers, the Messrs. Morgan, from whom it takes its name. It is situated at the summit of the mount, 1,125 feet above the level of the sea.

NUMBER OF MINERS.

MACHINERY AND MINING APPLIANCES

The bulk of the mining machinery and other mining appliances employed in the gold fields of Australasia is imported from Great Britain. Considerable quantities, however, are of colonial make, and perhaps a still larger proportion is imported from the United States. Indeed within the last two or three years quite an impetus has been given to the trade in American mining machinery through the success attending the operation of various kinds of American steam engines, furnaces, smelters, ore separators, quarrying machines, blasting batterers, pumps and pumping gear, rock drills, &c. Parke & Lacy, of this city, claim to have imported from San Francisco since the 1st of January, 1887, about $80,000 worth of mining machinery, against $13,000 for the corresponding period of last year. The estimated cost of all kinds of machinery and mining appliances used in the gold fields of Australasia is $19,737,412. About one-half of this amount is invested in Victoria alone, the exact figures for Victoria being $9,157,260. The machinery used in Victoria in alluvial mining consists of 214 steam engines of 6,758 horse-power, used in winding and pumping; 145 stamp heads, 138 steam puddling machines, 512 horse puddling machines, 144 whims, 107 whips or pulleys, 12,795 sluice forms and sluice boxes, 49 hydraulic hoses, 354 pumps, 155 water wheels, 87 quicksilver and compound cradles, 4 diamond drills, 13 boring machines, and 9 Root's patent blowers.

The quartz mining consisted of 871 steam engines of 19,689 horse-power, 76 crushing machines operated by other than steam power, 6,207 head of stamps, 55 buddles, 29 water-power winding and pumping machines, 302 whims, 409 whips or pulleys, 5 diamond drills, 7 stone breakers, 13 concentrating tables, 3 wheelers' pans, 17 Chilian mills, 31 amalgamators, 30 quicksilver and compound cradles, and 169 boring machines.

Among the various methods employed in Australasia for extracting gold from pyrites is that called the "Newbury Vantin System." This system is said to have given much satisfaction at Mount Morgan, in Queensland, and at Sandhurst, Ballarat, and Malden, in Victoria. The following is a description of the process: The usual mode of roasting the pyrites is adopted to free them from arsenic, sulphur, and other foreign substances, and then the calcined pyrites are mixed with water and brought to the consistency of a thin paste, and placed in a revolving iron cylinder lined with lead, where they are mixed with 1 per cent. of chloride of lime, and 1 per cent. of sulphuric acid, and rotated at a moderate speed, after air has been pumped into the cylinder to a pressure of 60 pounds to the square inch. The metallic gold attacked by the chlorine gas is converted into a chloride which is readily soluble in water, and after the air is blown off the contents of the cylinder are tipped into a filter, which is an iron cylinder having a percolating false bottom, out of which the air is exhausted by a vacuum pump, and water being freely poured upon the superincumbent pyrites, the result is that this is sucked through with marvelous rapidity, carrying the gold in solution. This process has hitherto occupied some 24 hours, but now three washings taking half an hour alto

stream is raised by a pump constructed of composite metal having no affinity to gold, into a vat where the sediment is allowed to gravitate, and it is then run into another, tested for gold with sulphate of iron, and run through a bed of charcoal, which attracts all the gold in a metallic form and allows the water to escape. The charcoal, when thoroughly impregnated, is brown in color, and on being gently scraped with a knife shows that it is saturated with gold, and which assumes its usual color. The charcoal is then burnt and the pure gold remains.

THE MINT.

The history of the establishment of a branch of the royal mint at Sydney is an interesting one. The people had for many years suffered from the want of a proper circulating medium. At one time coin of all kinds was so scarce in Australia that the governor of New South Wales issued a proclamation fixing the values of various kinds of coin at considerably higher rates than were allowed for them by the imperial treasury. A guinea was declared to be worth £1 2*s* ($5.34); a half-crown, 2*s*. 6*d*. (60 cents.), was valued at 2*s*. 8½*d*. (65 cents); 1*s*. (24 cents) was proclaimed to be worth 1*s*. 1*d*. (26 cents). The proclamation also made copper coin a legal tender to the amount of £5 ($24.33), and the recipient of that sum was obliged to carry home with him 37½ pounds weight of metal. At a later period the Government adopted the plan of allowing the issue of promisory notes by private individuals, payable on demand in copper coin. No one, however, was allowed to dispose of these notes at a less sum than the value on the face of them.

The appreciation of coin at that time can very well be illustrated by the statement that a Spanish dollar, worth 5*s*. ($1.21) was made to do duty for 6*s*. 3*d*. ($1.52) by an ingenious method of punching out of the center a circular piece called a dump and valued at 1*s*. 3*d*. (30 cents), whilst the rim, dignified by the name of "holey dollar," circulated for 5*s*. ($1.21),

After the discovery of gold in Australia there was a greater demand than ever for a proper metallic currency, and several of the colonial governments, in the desire to remedy the evil, authorized the coinage of gold, without waiting for authority to do so from the British Government. No objection was, however, made to this infringement on the prerogative of the Crown, for at that time probably no better expedient could have been adopted. The first coins made were sovereigns, and were issued at Adelaide, South Australia. They were alloyed with silver, instead of copper, and weighed 135 grains, instead of 123¼ grains, British standard. The Australian coin had upon the obverse side the figure of a royal crown, with the words "Government Assay Office, Adelaide," and on the reverse side "Weight 5 dwt. 15 grs. Value £1. 22 carats."

In 1853 the Imperial Government finally consented to the establishment of a branch of the royal mint at Sydney.

the branch mint should not be

by a regulation permitting the coinage of the produce of other colonies at reduced rates, and Victorian gold was attracted to Sydney. Subsequently, in 1872, a branch mint was established in Melbourne. The total product of both mints from their establishment to the close of 1885 amounted to 22,753,528 ounces, of which Sydney produced 14,108,558 ounces and Melbourne 8,222,808 ounces.

The returns of the Australian mint are sent to London before they are published in the colonies, and the statistics for 1886 will not be available until the issue of the annual report of the deputy master of the royal mint in June next.

Gold is the only metal coined at the Australian mints; the silver and bronze coinage used in the colonies being obtained from London. About three-fifths of the Australian coinage finds its way to the Bank of England.

The receipts of gold from coinage from all sources at the Sydney mint for the year 1885 amounted to 422,160 ounces, against 472,160 ounces for the year previously; the falling off having been occasioned by the decline in the quantity received from New Zealand, formerly the second gold-producing colony in Australasia. Light gold coinage to the amount of £60,453 ($300,922) was received for recoinage, and worn silver coinage of the nominal value of £4,530 ($22,040) was withdrawn from circulation. The number of assays made were as follows:

Gold assays:	
Rough	2,717
Refined	646
Standard	1,792
	4,155
Silver assays:	
Parting	2,680
Wet	179
	2,859

Two hundred and thirty-three mineral assays were also reported, and 48 samples of quartz, weighing over 53 tons, were treated experimently, and 143 ounces of gold were extracted by amalgamation. About 8 per cent. of the gold was received in its native state and the remainder had been previously melted or otherwise treated. The whole was melted, assayed, and valued, and 409,685 ounces were refined by chlorine process, which produced 338,892 ounces of refined ingots of the average assay of 996.0 and 58,604 ounces of silver; 386,696 ounces of refined ingots and alloy, and 309,265 ounces of Scissel were melted into standard bars; the average assay of the ingot bars was 916,746, and of the Scissel 916,734; the highest and lowest reports being respectively 917,250 and 916,425 for ingot bars, and 917,250 and 916,400 for Scissel; 691,169 ounces of standard bars were passed on for coinage and 381,862 ounces of coin returned to the bullion office.

The consumption of dies was at the rate of one pair for every 40,000 pieces. The average weight of the sovereign was .256825 of an ounce, and the average assay 916.693.

The total quantity of gold received at the Melbourne branch dur-

received, which contained by assay 976,495.376 ounces of standard gold, and from which 27,070.26 ounces of fine silver were extracted.

The quantity of gold received at the mint during 1885 has therefore been less than that received in 1884 by 104,473.39 ounces. This falling off has been mainly caused by the decrease in the quantity of gold received from other colonies.

The coinage of the year was £2,972,000 against £2,966,000 for the year previous. The average weight of the sovereigns and half-sovereigns was, respectively, .25682 ounce and .12843 ounce, and the average assay of both was 916.62. The total value of gold coin and bullion issued was £3,351,838 18*s.* 8*d.*, or a decrease of £449,889 10*s.* 1*d.* from that issued in 1884, which had been £3,801,728 8*s.* 9*d.* The following are the assays made at the Melbourne branch during the year 1885:

Coin	1,188
Standard bars	3,904
Rough gold parting	9,308
Refined	2,884
Proof	3,783
Silver	377
Sweep and mineral	36
	21,480

I am indebted to Mr. Robert Hunt, deputy master of the mint at Sydney, for the following table, showing the value of coins struck at the London, Melbourne, and Sydney mints from 1876 to 1885, inclusive:

Year.	London.	Sydney.	Melbourne.
1876	£4,696,700	£1,643,000	£2,124,000
1877	981,400	1,590,000	1,527,000
1878	2,265,144	1,322,000	2,171,000
1879	35,050	1,413,000	2,740,000
1880	4,150,058	1,499,000	3,052,800
1881	Nil.	1,391,000	2,345,800
1882	Nil.	1,324,000	2,519,000
1883	1,435,228	1,218,000	2,050,000
1884	2,336,513	1,595,000	2,942,000
1885	2,973,453	1,486,000	2,966,000

It will be seen from the above table that no gold coin was struck at the London mint during the years 1881 and 1882, the supply from the Australian mints being sufficient to meet all requirements.

METHOD OF REFINING GOLD.

The method adopted at the Australian mints for refining gold and silver is the invention of Mr. F. P. Miller, formerly one of the assayers at the Sydney mint, and now superintendent of the bullion [illegible] chemists, simply in passing chlorine gas [illegible] Sydney in 1869,

known, but the fact is it was successfully employed by Malaguti Durocher and others, in Paris, many years previous, and Mr. Louis Thompson, in a communication to the Society of Arts, of London, as early as 1838, said:

> The plan I submit for assaying and purifying gold is no less simple in execution than certain in effect, and is founded on a circumstance long known to chemists, viz: That not only has gold no affinity for chlorine at a red heat, but that it actually parts with it at that temperature, although previously combined.

Professor Aiken and others about the same period published the result of a series of successful experiments in purifying gold with chlorine gas. These experiments, however, were conducted on a smaller scale, and should not affect in the least the credit to which Mr. Miller is justly entitled, for there is no evidence to show that he had ever heard of these experiments. Dr. John Percy and other scientists, who have investigated the history or origin of the invention, are of the opinion that Mr. Miller was the first to show that the process was fully practicable, and especially with the view of saving the silver combined with gold. The method appears to have given much satisfaction at the Sydney and Melbourne mints, principally because Australasian gold is so largely impregnated with silver, the latter metal often running as high as 40 per cent.

It is admitted, however, that when auriferous silver occurs, as well as argentiferous gold, the process of dissolving out the silver with acids is much more economical than the chlorine process. The furnace used in the Miller process differs very little from the one commonly used in gold melting. The flue is brought near the top, so that the crucibles holding the molten gold can be placed high up in the furnace without being cooled by the draft. The crucibles are made of clay, and are capable of holding about 700 ounces of gold each. They are provided with loosely fitting covers made of the same material, each having two small holes bored through them. The crucibles are first fitted with a solution of boiling borax, for the purpose of glazing their surfaces and rendering them impervious to melted chloride of silver.

The pipes through which the chlorine passes are also made of clay, the lower ends of which are heated so as to prevent them from splitting. The jars for generating the gas are of the best glazed stoneware, and hold from about ten to fifteen gallons each. The chlorine gas from the generator is conducted into a leaden pipe fitted with branches for several furnaces respectively, all intermediate connections being formed by means of vulcanized india-rubber tubing. The crucibles are slowly heated to a dull red color and the gold is introduced in the form of what is known as the "slipper-shaped ingot," the narrow end being placed downwards. As soon as the gold is melted a small proportion of molten borax is poured upon it. The clay pipe is then introduced and a small quantity of chlorine gas is passed through, so as to prevent the gold from rising and soldifying in the pipe. The pipe is gradually depressed until it touches the bottom, where it is kept down by means of a weight at the top. The compressor is then relaxed and the gas bubbles up through the molten gold,

of the chloride of silver. So long as any of the silver remains in the gold, the whole, or nearly the whole, of the chlorine continues to be absorbed. When the operation is nearly over, fumes of a darker color than those produced at first make their appearance, and the end of the operation is indicated by the color of the flame or luminous vapor, which is at first of a bright yellow and then a deep reddish brown. The quantity of chlorine gas employed in the process depends upon the quantity of gold operated upon. The time required to deliver sufficient chlorine to refine about 400 ounces of gold of 900 assay is usually from one to two hours, according to the size of the pipes employed and the rate at which the gas is generated.

As soon as the operation is over the gold is allowed to stand until it solidifies. It is then poured upon an iron table, remelted and cast into bars. The chloride of silver is melted in clay crucibles prepared with borax, together with from 8 to 10 per cent. laminated metallic silver. When the contents are thoroughly heated, the crucibles are removed from the furnaces, and after standing for a few minutes the still liquid of chloride of silver is poured into molds and cast into slabs. The gold in the chloride of silver alloys with the metallic silver and forms a cake at the bottom of the crucibles.*

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, April 12, 1887.

THE HARVEST OF NEW SOUTH WALES.

REPORT BY CONSUL GRIFFIN, OF SYDNEY.

The New South Wales agricultural returns for 1887 show a more bountiful harvest than that of the previous year. In wheat, the principal crop, there was an increase of 3,222,026 bushels, the figures being 5,955,159 bushels for 1887, against 2,732,133 for 1886. Oats increased from 279,107 bushels to 606,744 bushels, barley from 85,606 bushels to 135,474 bushels, hay from 192,372 tons to 349,982 tons. The crop of potatoes increased from 38,695 tons to 48,600 tons. The grapes for wine increased from 555,740 gallons to 601,881 gallons. There was, however, a decline in the oat crop from 4,336,163 bushels in 1886 to 3,819,772 bushels in 1887. There was also a falling off in the yield of sugar cane, the decline being from 239,347 tons in 1886 to 167,959 tons in 1887. The tobacco crop during the same period declined from 22,947 cwt. to 14,970 cwt.

New South Wales, being south of the equator, the harvest is over [illegible] of March, and in some of the northern districts much [illegible] the yield of the prin-

Year.	Wheat.		Corn (maize).		Barley.		Oats.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.
	Acres.	*Bushels.*	*Acres.*	*Bushels.*	*Acres.*	*Bushels.*	*Acres.*	*Bushels.*
1878.....	176,686¼	2,445,507	105,510	3,551,806	5,055	99,485	1,580½	358,853
1879.....	233,252½	3,439,326	130,582½	4,420,580	6,152	132,072	22,129	447,312
1880.....	233,368¼	3,613,266	135,034	4,761,856	6,130¼	131,541	23,883¼	516,937
1881.....	253,137¼	3,717,355	127,196	4,518,897	8,056	163 395	17,922¾	356,121
1882.....	221,887¼	3,405,966	117,448½	4,930,596	6,426¼	135,218½	16,347¾	356,566
1883.....	247,361	4,042,395	118,186	457,635	6,473½	133,050	24,817¾	617,485
1884.....	289,757	4,345,407	123,634½	4,538,604	5,081	106,496	7,810½	376,635
1885.....	275,249½	4,243,394	115,650¼	2,989,585	7,035½	148,869	9,472¼	425,920
1886.....	264,867	2,768,330	137,709	4,235,163	5,297¾	85,606¼	4,117	279,107
1887.....	337,369	595,159	146,839	3,819,772	6,209	135,474	23,781	606,744

Year.	Potatoes.		Sugar cane.		Tobacco.		Grapes for wine.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.
	Acres.	*Tons.*	*Acres.*	*Pounds.*	*Acres.*	*Cwt.*	*Acres.*	*Gallons.*
1878.....	13,862½	34,957½	3,331¾	16,883,328	399	3,049	4,183¾	708,431
1879.....	16,724¾	53,590	2,949¾	18,278,736	835	7,932¼	4,237½	684,733
1880.....	9,271	62,227¾	3,675¼	17,229,296	592	6,221½	4,266¼	733,576
1881.....	19,095½	52,111¾	4,465¼	16,352,336	1,794¼	19,469½	4,800¼	602,007
1882.....	15,943¾	44,323	4,983¾	17,813,376	1,625	18,311¼	4,027¾	513,688¼
1883.....	14,463¼	43,460¾	6,362¼	11,650,688	1,815	17,540½	4,448	543,696
1884.....	14,353¾	36,976¾	7,583	35,223,640	1,785¾	20,006¼	4,378¼	589,604
1885.....	12,437½	31,334¾	6,997	21,835,072	1,446	9,914½	4,584	441,612
1886.....	15,166	38,695	9,583¼	41,359,360	1,603	22,947½	5,247¼	555,470
1887.....	19,585	48,600	5,915	23,586,400	1,193	14,970	5,114	601,881

AREA UNDER CROP AND NUMBER OF HOLDINGS.

In 1886 there were 38,582,723 acres in New South Wales held for cultivation against 18,210,796 acres for 1877, an increase of 20,371,927 acres, but there was not a corresponding increase in the number of acres actually under cultivation.

The increase of the latter during the decade was from 513,840 acres to 868,093 acres. Of the land held for cultivation last year 32,717,515 acres were inclosed, against 11,020,968 in 1877. The extent of land inclosed in 1886 was 5,002,114, against 6,675,887 for 1877, a decrease in the decade of 1,173,773. These figures show that while cultivation does not advance, that there is great activity going on in taking up land and fencing it in for speculative purposes, and which, to say the least, does not present a very encouraging outlook for the agricultural interests of the country.

AVERAGE PER ACRE.

The average yield of wheat per acre in New South Wales in 1887 was 17.64, against 13.07 for 1886. It was 15.27 in 1885 and 14.43 in 1877. The average in New South Wales, while not as high as that of New Zealand or Tasmania, is considerably more than that of Victoria and South Australia, the two principal wheat-producing colonies in the group. The average yield in the former colony for a term of ten years was 12.16 bushels. The average of the present harvest

The average for a term of ten years in Tasmania was 18.36 bushels per acre. The average yield of maize per acre is larger in New South Wales than in Victoria, the former colony having 26 bushels and the latter 37 bushels per acre. In oats New South Wales averages 22.51 bushels per acre, and Victoria 20.23 bushels. New Zealand, however, takes the lead in the average of oats as in all other grains. The average of oats in that colony for a term of ten years was 32.51 bushels per acre. In 1887 it was 35.17. The average yield of barley in New South Wales in 1887 was 21.82 bushels; in Victoria it was 20.86; New Zealand, 30.38. In some of the southern districts of Australia the yield of grain to the acre is something enormous. Indeed, it is said that the most fertile land in the world is found in New South Wales along the margins of the rivers, particularly the bottom lands of the Clarence, Macleay, Manning, Hunter, Hawkesbury, and Shoalhaven. This fertility is counterbalanced by the frequency of floods at times when the crops are ready to be gathered. Wheat now seems to be more profitably grown than formerly on the high table lands of the interior, about from 3,000 to 4,000 feet above the level of the sea. Rust, the great enemy to wheat in Australia, is comparatively unknown on the table lands, and especially in the New England district in the north, Orange in the west, and in Tumat and Young in the south and southwest.

METHODS OF WHEAT FARMING.

Experience has shown that the most profitable method of growing wheat in Australia is to combine the industry with that of rearing sheep. Professor Cunstance, of the Roseworthy Agricultural College, is credited with being the first to introduce the system in Australia. Feed in most cases has to be provided for the sheep in the summer, and the professor's plan is to grow a root or green crop, as sheep folded on such a crop improve the quality of the soil. Fresh seed from an early variety is recommended. The professor noticed that two imported varieties, grown on the Roseworthy farm last year, matured much earlier than the ordinary kind. He strongly recommends the use of super-phosphates for improving the land, especially when a good article can be purchased at about £4 ($19.46) per ton. He noticed that in most cases that 3 cwt. of super-phosphates to the acre more than doubled the crop. His plan for getting rid of red rust is to obtain a new variety of wheat and grow a root or fodder crop which can be fed off by sheep, if not required, as a preparation for the wheat crop.

Mr. James Harold, a high authority on Australian agriculture, is also very favorably impressed with the system of combining wheat and sheep farming. Mr. Harold says that the most favorable results have been obtained by this system in the Riverina districts, where it was said wheat would not grow. He noticed that the farmers who [illegible] with alternate cropping, were enabled last year, [illegible] the colonies, to realize,

energetic men in the Cootamundra, Young, and Grenfell districts of New South Wales. These men know very little of theories of agriculture, and their system is one of experience only, and it is encouraging to everybody to see how well they have succeeded.

He says, further, that these men usually possess from 500 to 3,000 acres of land, and their plan is invariably to crop every alternate year, and to permit sheep to graze on the land in the intervening year. They plow their land in the autumn as soon as possible after the sheep have gone through the stubble. This kills the weeds and wild oats and opens the soil to the sun and atmosphere. The land has never been exhausted, and consequently there are no inferior weeds, but in ordinary seasons an abundance of green and succulent herbage makes its appearance, and sheep or cattle are turned in to eat it down. The first plowing is shallow, then it gets a deep spring plowing, and then when sowing time comes, the seed is put in with a cultivator, or perhaps another shallow plowing. Mr. Harold stated in a lecture he delivered recently at the Technical College of Sydney that the successful farmers in Australia shallow plow in their seed, that is, they sow their seed on the surface of the soil and shallow plow it in to a depth of about four inches. He said that farmers who followed this plan are enabled to grow twice as much wheat as their neighbors who refuse to adopt it.

The best varieties of seed wheat suited for Australian soil are the purple straw, the New Zealand straw, white Tuscan, Talavera, and early bart. The so-called Mexican wheat, which was distributed last year through the agency of the minister for agriculture of Victoria, and from which so much was expected on account of its reputed earliness and rust-resisting qualities, proved a complete failure in many districts. It turned out to be the common red Indian wheat, which has been in the colonies for many years. Its straw is very weak and slender, and when sown on rich soil falls down and cannot be harvested without great difficulty. The successful farmers here seem to place more reliance on the purple straw than any other, although very fair results have been obtained from white Tuscan and early bart. The time for sowing in New South Wales and Victoria is in June or July, but in South Australia and Queensland it begins in the month of May. At the Roseworthy farm last season the purple straw wheat sown on the 13th of May was harvested on the 10th December.

IMPORTS OF WHEAT.

The quantity of wheat required in New South Wales for the present year is estimated at 6,722,086 bushels. These figures show a deficiency over the harvest returns of 766,927 bushels. Last year the short crop made the imports much larger than usual, although the colony for many years has not been able to produce a sufficient quantity of wheat and other breadstuffs for home consumption. The imports of wheat into the colony during 1886 were 1,105,079 bushels, valued at $1,000,435, against 545,423 bushels, valued at $477,725, for the year 1885. Of the imports for 1886, New Zealand furnished the largest proportion. The quantity imported from that

The following table shows the quantity and value of wheat imported into New South Wales for each year since 1877:

Quantity and value of wheat imported into New South Wales for each year from 1877 to 1886, inclusive.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Bushels.			*Bushels.*	
1877	823,526	$1,356,090	1882	698,518	$262,615
1878	780,604	1,099,175	1883	247,099	303,400
1879	442,849	546,225	1884	469,785	432,330
1880	422,413	471,725	1885	545,423	477,735
1881	200,118	293,210	1886	1,105,079	1,101,435

It will be seen that the imports were larger during 1886 than those of any previous year. The imports of other breadstuffs were also in like proportion. The total value of all kinds of breadstuffs imported into New South Wales for 1886 was $5,117,275, against $3,655,080 for the year 1885. Of the imports for 1886 the value of wheat, 1,105,079 bushels, was $1,001,435; flour, 61,496 tons, was $3,446,860; bran, 1,065,196 bushels, was $450,360; pollard (a mixture of bran and meal), 203,812 bushels, $56,525; sharps, 99,944 bushels, was $26,500; oatmeal, 33,261 cwt., was $134,595; total, $5,117,275.

The subjoined table shows the quantity and value of wheat imported in New South Wales for 1885 and 1886, and the names of the countries whence imported.

Countries.	1885.		1886.	
	Bushels.	Values.	Bushels.	Values.
	270,618	$204,380	437,486	$434,040
New Zealand	.....	.....	356,005	354,175
United States	154,105	156,180	3,223	4,265
South Australia	120,684	117,165	285,771	288,645
Victoria	8	5	1,964	2,455
Queensland	8	5	2,054	2,285
Tasmania	.....	.....	18,626	16,570
India				

AGRICULTURAL IMPLEMENTS AND MACHINERY.

There is no doubt that the Australians prefer their own plows to any other, although they are much heavier and clumsier and more expensive than those imported from the United States. The plows generally in use are the ordinary two and three furrow plows, made wholly of iron. The Australian farmer has a decided objection to the use of plows with wooden handles. Several Saint Louis and Louisville firms have succeeded in building up quite a trade in American plows, especially in this colony and Queensland, but these im- manufactured solely for the Australian market visited the colonies and

imitations of them that the competition for the trade in these articles is very keen. In some portions of the colonies the Australian stripper is preferred to the reaper and binder. The stripper, although usually called an Australian invention, is in reality an adaptation of an American machine which has been in use for many years in California and other Western States of the Union. It not only cuts the grain, but dispenses with the necessity of thrashing it. The stripper is operated like the reaper and binder, only it is fitted in front with a combining apparatus which catches the heads of the grain and, stripping them off, passes them into a box, from which they are discharged in a heap and put through a cleaner. The machine is able to cut from five to nine acres of wheat per day, according to the condition of the crop and weather. In wet weather or in early morning it does not act well. Some of the machines have placed in them ordinary thrashing drums, which thrash any heads not stripped. The machines with drums attached are called damp-weather strippers. The stripper was first manufactured in Adelaide, South Australia, where it is more popular than in any of the other colonies. Recently, however, factories have been established for its manufacture in Melbourne and Sydney.

The introduction of the American reaper and binder did not at first interfere with the supremacy of the stripper, and especially in South Australia, but in time the American machine became a very formidable rival, not only in Victoria and New South Wales, but in South Australia. It should be remembered, however, that in some localities, for instance where straw is regarded as of little value, the stripper is almost sure to be preferred, besides, harvesting with the stripper is generally admitted to be a very economical process, from the fact there is only one loss, instead of several, as in the different processes of binding, stooking, carting, and thrashing. Moreover, in some districts in Australia the crops are so thin and short that they cannot very well be harvested with the reaper, and it is said that the practice of burning the straw on the field renders the land very fertile, an advantage which cannot be had when the reaper is used. Nevertheless, it will not be questioned, I think, that the reaper is becoming more and more popular, and especially near the large cities and towns, where straw is required. In the southeastern district of Victoria, and along the Goulburn, the reaper is invariably used.

According to the Melbourne Argus, all the American reaping and binding machines that could be obtained in Victoria last year were purchased, and more of them would have been used had they been available. The system of harvesting with the stripper, in spite of its economy, is very far from being a clean one, and the Argus recommends that a system of farming be adopted that will embrace the use of both machines, from the fact that reaping can be commenced a week or a fortnight earlier than stripping, and that stripping can be carried on long after reaping will be impossible. By this means all bustle and hurry can be done away with at harvest, and at the same time the farm stock would never be without straw. The stripped wheat can also be sent to an earlier market, if necessary, while that which has been reaped will the more easily be allowed to wait for shipments. The stripper, however, is subject, I think, to very great improvement

The Californian combined reaper and cleaner, while admirably adapted to the States on the Pacific slope of America, is too cumbersome for Australian farms. What seems to be wanted is a lightly constructed reaper and cleaner that could be operated with six or eight horses. Such a machine would, I feel assured, meet with a ready sale, not only in New South Wales, but throughout Australia.

OBSTACLES TO AGRICULTURAL PROGRESS.

The present land law of New South Wales is thought by the farmers to be a serious obstacle in the way of agricultural progress. The law is said to have been made more for the benefit of the wealthy squatter, or sheep owner, than for the farmer, and there is a loud clamor from one end of the colony to the other to have it repealed. It is certainly very difficult to obtain land, except for pastoral purposes, upon favorable terms in New South Wales. The laws of the other colonies are said to be more liberal in this respect, but it does not appear that agriculture has advanced in any of them to the extent that it has in countries far less favored in soil and climate. South Australia is the only colony in the group that has ever made a specialty of growing grain for export, but even there the results have not been as satisfactory as the people anticipated. As far back as 1843, or long before the wheat fields of California and of the great Northwest were ever thought of, wheat was cultivated for export in South Australia, and it is perhaps not generally known that California for many years obtained the bulk of her supply of seed wheat from that colony. Now, however, the Australasian colonies, with an area very nearly as large as the whole of the United States, are unable to produce as much wheat as the State of California. The total yield of wheat in all the Australasian colonies is seldom more than 35,000,000 bushels per annum whilst California, besides supplying her own requirements, has not unfrequently considerably more than that amount available for export.

One of the chief obstacles to wheat growing in many parts of Australia is the heavy cost connected with clearing the land and preparing it for crops. The timber is principally composed of various kinds of hard wood, and after the trees have been cut down and hauled away it is very difficult to remove the stumps, and where stumps exist machinery cannot be employed for wheat growing. Moreover, the cost of labor and provisions of all kinds is much higher in Australia than in any of the wheat-growing districts of the United States; whilst the freight charges on the Australian railways are more than double those of America.

Another difficulty to agricultural progress in Australia is that vast areas of country are taken up for sheep farming. In the Riverina district there are plains so vast that a man on horseback feels like a ship at sea. As far as the eye can reach there is the vast level, unbroken by a single obstacle, save perhaps a glimpse here and there [illegible] of some sluggish water course. [illegible] depth, and

outright, but a much larger proportion is owned by the Government and is leased for pastoral purposes from nothing up to 4 cents per acre per annum.

A vast area of this land is infested with rabbits, the number of which is estimated by hundreds of millions. The station master, as a rule, is the Government receiver of rabbit skins, and it is sometimes questioned which pays the best, killing rabbits or rearing sheep. Wheat of excellent quality, averaging from 25 to 30 bushels to the acre, could be grown in this district (if the land could be obtained), and the industry would not interfere in the least with that of sheep farming.

The uncertainty of the rainfall in Australia is perhaps the greatest difficulty with which the Australian farmer has to contend. The drought, which is unusually severe in the northern and western districts on account of the intense heat of the sun, is often prolonged for several years. The rain, if it comes at all, is almost sure to come at a time when it is not needed. The drought during the last two or three years has been so destructive that a very general interest has been aroused throughout the colonies in the question of irrigation as a means of increasing or insuring crops.

A number of gentlemen of acknowledged ability, including the Hon. Alfred Deakin, the present minister for agriculture in Victoria, have recently visited the States on the Pacific slope of the United States for the purpose of reporting upon the system of irrigation employed there and the advantages to be derived from its adoption in Australia. The main difficulty, however, in the colonies is that all the rivers and streams are below the level of the land suitable for irrigation. Pumping, or some means of water lifting, has, therefore, to be resorted to, and this of course increases the cost of irrigation. The quality of the water, however, and the fact of its being stored in the river beds, and of its exposure to the heated atmosphere, make its properties especially valuable for the production of crops. Very little, however, has yet been done in any of the colonies in the way of irrigation, but the little that has been done has given satisfaction, and the system adopted is certainly extending. Some of the large farming companies in the interior of New South Wales are either irrigating by means of pumping machines, or are arranging for the purchase of such machines. The old English riparian laws, however, which prohibit the damming of water courses, or in any way interfering with the natural flow of water, form an important obstacle to irrigation in Australia. It is likely, however, that all the colonies will adopt an intercolonial law, making all water courses, creeks, lakes, rivers, &c., the property of the respective Governments, so that water can be stored in suitable places for irrigation. The interior river system of New South Wales, to which I referred at length in my special report on "Irrigation in Australia," offers enormous facilities for water storage in the river beds. It is estimated that fully 5,000,000 acres could be supplied with irrigation water from the sources mentioned. The cost could be enormous, but the result would more than justify the cost, as the land over an immense area is of excellent quality for the

NEW ZEALAND—A NEW DISCOVERY FOR DESTROYING THE CODLIN MOTH.

REPORT OF CONSUL CAMPBELL, OF AUCKLAND.

The importation of American apples into the port of Auckland is prohibited by municipal enactment, because of the fear, as is alleged, that the codlin moth, the great enemy of the apple crop, would, with the introduction of the apples, find its way from America into this colony. The purpose of this prohibitory law, it must be admitted, is reasonable, for it is natural for a community to protect its own industries, as well as its own people, from impending danger in any legitimate manner. But if the law is founded in mistake or the reason for its existence no longer remains, then it ought to cease. Notwithstanding this precautionary measure, the codlin moth is by no means a stranger in this colony. It was here, as I am informed, long before the enactment against American apples. It is here now, and its ravages are seen and felt in orchards in different parts of the country, and all efforts to stop its destructive warfare upon the apple crop are now, and have been, as ineffective and unavailing as in America or other parts of the civilized world. The nature and habits of the codlin moth are such as to render it difficult to devise a means for its destruction.

My attention has been called to a new and quite novel mode of destroying this pestiferous and destructive insect, which, I incline to believe, is unknown in the United States, and I therefore report it that the fruit growers may avail themselves of the idea, and prepare to set in motion this new device for the destruction of this hitherto unconquerable pest and destroyer of the most delicious and valuable of all fruits.

Mr. H. C. Field, of the Wanganui district, has forwarded to the Auckland Museum some flowers of a plant called physianthus, sometimes called arauja, which has lately been recommended for planting in apple orchards for the purpose of not only checking the increase of codlin moth, but destroying it. The plant is a twiner, and bears a profusion of flowers, which bloom through the summer and autumn. The flowers are quite fragrant, of a whitish color, rather handsome, very sweet scented, producing an abundance of honey, and are very attractive to moths and insects generally. The plants of the physianthus twine and grow up the trunk of a tree, and spread out through the limbs, something like ivy, but do not adhere so closely to the tree nor grow anything like so thick or heavy. It would not damage an apple tree to plant this near the root and train it up the trunk and through the branches. Its cultivation would be of great value in the bee industry, on account of the sweetness of

the moths are attracted to it in great numbers, and, once in the flower, they become prisoners, never to get out alive. They visit the flower and insert their proboscis in a narrow cleft, and in doing so touch a body called the retinaculum, which has a notch in one side. The proboscis of the insect becomes fastened in the notch, and cannot be withdrawn by an insect so weak and frail as the moth. If the insect were strong, like a bee, for instance, it could pull away the retinaculum and free itself, but the moth has not the strength to do so, and dies in the flower.

Mr. T. F. Cheeseman, an accomplished gentleman, and superintendent of the Auckland Museum, to whom I am indebted for this information, showed me some of the flowers. They contained a number of dead moths, and it is stated that in the district where these flowers grew, during the whole of the past summer the flowers at that place were loaded with dead moths. It is plain that nature has supplied this beautiful flower as a prison and death pit for insects.

The physianthus or arauja plant is a native of South America, and was introduced into this colony by Major Lockett, by way of the Cape of Good Hope. It grows well here, and I feel quite sure that it would grow and thrive well in the United States, especially in Oregon, California, and Arizona. It may be that the plant is well known in the United States, but its use as a means of destroying codlin moth, I incline to think, is not known there.

JNO. TYLER CAMPBELL,
Consul.

UNITED STATES CONSULATE,
Auckland, May 22, 1887.

WATTLE-TREE CULTURE IN NEW ZEALAND.

REPORT OF CONSUL CAMPBELL.

As the forests in America are fast disappearing, it is well to look to the cultivation and growth of trees to supply the place of those, that have fallen under the ax of civilization, and from what I can learn of the Wattle tree, I confidently believe it is one of the many the cultivation and growth of which would be successful and profitable in many parts of the United States, particularly in the Pacific States and Arizona, where the climate and soil are so very similar to New Zealand and Australia, and I see no reason why the same result wo uld not occur in Florida and the Gulf States of the Union.

The Wattle tree is a native of South Australia, but grows extensively in New Zealand and in the Australasian countries, into which it has been introduced by the hand of enterprise. It belongs to the Acacia family of tree and grows readily in almost any kind of soil in which it has been tested. But its growth is more rapid in sandy places. This is characteristic of the [illegible]

ITS VALUE AS A TREE.

The greatest value of the tree is its bark, which always commands a good price for tanning purposes, but the wood of the tree can be and is utilized for barrel and cask staves, wagon and plow timber, ax and pick handles, and many other articles requiring tough, hard, and durable wood.

The gum which exudes from the tree is also of value, always commanding a profitable price, and its collection does not affect the bark or injure the tree. The less gum there is left in the bark the more valuable it becomes.

It is an ornamental tree, and presents a nice appearance. I find it in yards, and it looks as well as any tree usually planted in such a place. There are several kinds growing in this colony, but the best are the black or feather leaf (*Acacia decurrens*) and the golden or broad leaf (*Acacia pycnantha*). The bark of the Wattle, it is believed, yields a larger percentage of tannin than perhaps any other tree grown in this colony, and I am told by a gentleman of experience that it is better than the oak tree of America, and that tanners who have tried both prefer it to the oak. Its cultivation is looked upon as one of the most profitable industries, and the question of allowing a bonus as an inducement to persons to engage in planting the tree is being agitated in the agricultural papers in the colony.

HOW TO PLANT THE TREES.

The policy advocated, and it is certainly the part of wisdom, is to use the poorer pasture lands for the cultivation and growth of this tree, and it stands to reason that the planting of trees upon this kind of land improves its character and makes it more productive, to say nothing of the value added to the land by the growth of paying trees upon it. The bark is stripped off of the trees in the season of the year when the sap is most active; and in order to keep up the supply the planting is done annually, thus replacing the trees that have been killed by taking off the bark. I am indebted to *Brett's Colonist Guide*, an excellent hand-book on New Zealand, for the mode of planting the trees and other interesting facts:

Planting can take place with the early showers of autumn or spring; and as the outer covering of the seed is peculiarly tough, rendering it impervious to ordinary germinating influences, it requires before sowing to be soaked in hot water until it becomes soft. As the seeds are small and require to be kept near the surface, a very slight sprinkling of earth over them is sufficient.

I am told that unless the seeds are well soaked in hot water before planting they will never germinate in the ground. It needs only an inspection of the seeds to confirm the correctness of this statement. The ground should be plowed deep, well harrowed and rolled, and the rows laid off about five feet apart. The use of a drill for this would be very good. An owner of a plantation of 186 acres [illegible] then sowed the seeds in the rows [illegible] The

I take the following from *Brett's Colonist Guide*, showing the receipts derivable from a wattle plantation of 100 acres during eight years:

Each acre (wattles 10 feet apart) would carry over 400 trees; at the end of fifth year would yield, say, 56 pounds of matured bark. Stripping every third tree, 333 tons would be obtained, which, at £4 ($19.46) per ton, would give for first stripping £1,332 ($6,482.17); sixth year, increase in bark 14 pounds, 400 tons, at £4 ($19.46) per ton, £1,600 ($7,786.40); seventh year, bark increase 14 pounds, 480 tons, at £4 ($19.46) per ton, £1,920 ($9,343.17); yield of bark, eight years, 1,213 tons, at £4 ($19.46) per ton, £4,852 ($23,612.85).

At the time this estimate was made the bark was selling at from £6 ($29.19) to £9 ($43.79) per ton.

AN IMPORTANT INDUSTRY.

With the facts herein set forth it is plain that the planting of the Wattle tree ought to be encouraged in New Zealand and other countries where its growth is assured, but particularly in the United States of America, where there are vast plains containing the soil especially adapted by nature for the growth of this tree of ornament and utility. If forests of these trees were judiciously planted and properly cultured, it would not be many years before handsome returns would be received, besides the grace and beauty that might be given to uninviting and barren wastes.

JNO. TYLER CAMPBELL,
Consul.

UNITED STATES CONSULATE,
Auckland, New Zealand, June 19, 1887.

THE BANANA TRADE OF DEMERARA.

REPORT OF CONSUL BUNKER.

In my opinion there is no more favorable opportunity for the establishment of a steamship line and fruit-growing company by Americans than is presented in this part of tropical America. The profits of such a venture must, in view of the magnitude of the trade, be necessarily large.

British Guiana (embracing the counties of Demerara, Berbice, and Essequibo) is situated on the northern coast of South America. It has a sea-coast line of about 280 miles, by an interior depth varying from 300 to 450 miles from north to south. Its principal rivers are the Essequibo, the Demerara (on which the capital, Georgetown, is built), the Berbice, and the Corentyn, all navigable.

The cultivated districts of the colony lie mostly on the coast lands, and consist of extensive alluvial deposit, composed chiefly of blue clay, impregnated with marine salt, and rich in decomposed vegetable matter. This alluvial flat extends from 10 to 40 miles inland, terminating at a ridge of sand hills. The area of land in cultivation is about 140,000 acres.

The [illegible]

I estimate the cost of raising this fruit at less than 8 cents per bunch, and I base my estimate on the price (6 cents per bunch) at which plantains are sometimes sold, this yielding a profit to the seller.

The long yellow plantain bananas grow in large bunches, are finely flavored, and are in every way superior to the productions of Cuba, Jamaica, and the West Indian Islands. They are fully equal to those brought to America from Port Limon and Aspinwall, which are so deservedly popular in our home markets.

The first cost of planting an acre of land in bananas is from $50 to $60, the production being from 600 to 800 bunches to the acre. The plants mature in nine months and the fruit can be gathered every week in the year after it is well started.

In Cuba, Jamaica, Honduras, and Port Limon, bananas are brought to port by railroads, donkey carts (springless), and on the heads of negroes, who throw them down every now and then while resting; consequently the fruit reaches the ship more or less bruised and damaged.

In this colony the principal means of transport is by water; consequently bananas would be delivered at the steamer in better condition than at the places before named.

Central America and the islands where bananas are grown for export are subject to violent hurricanes, that not unfrequently destroy all the plants in its wake, obliging vessels to seek cargoes in other ports; this never occurs on the Guiana coast, as hurricanes do not prevail in these latitudes.

The Atlas line of steamers is said to control the trade between Port Limon and New York; their sailing time averages ten days, the distance being 2,008 miles.

Demerara is about 2,200 miles from New York. A vessel steaming at an average of ten knots would reach the latter port in ten days from here; steaming eleven knots, in nine days, and twelve knots, in eight days.

From Demerara the Gulf Stream is crossed in ten hours, while vessels from Port Limon run for a much longer time in the stream, and it is a well-known fact among shippers that its heat "cooks the fruit."

In certain cases the Colonial Government exempts steam vessels carrying mails from the payment of harbor dues, and it is probable the same courtesy would be extended to a line of banana steamers carrying mails.

Steamers trading here might call at Bermuda and Barbadoes for passengers and mails; a few hours' detention largely increasing the profits of the voyage.

Vessels drawing 18 feet 6 inches can enter the Demerara River at high water.

There were imported into the United States in 1885 bananas invoiced at upwards of $2,000,000. Those received at New York amounted to [illegible] at Boston, $250,000; Philadelphia, $70,000; Balti- [illegible] $20,000. The cargoes real-

age rarely exceeds 15 per cent. Supposing the balance were sold at the low price of $1 per bunch, I estimate the profit on the trip would not be less than $7,000 after payment of all charges. These calculations do not include the profits the steamer would make by the carrying of general freight, passengers, and mails.

An especial advantage for a company growing and shipping its own produce would be in cultivating cocoa. It is well known among planters that the banana furnishes the best shade for young cocoa plants, and it is quite ample up to five years' growth, at which age the tree begins to bear paying crops. The profit on the banana crop would pay the entire cost of cultivation, giving the planters a valuable cocoa estate for nothing.

The banana plants yield an excellent fiber, which, if properly collected and prepared, should go far to pay the cost of estate's labor, and the papaw, lime, orange, mango, guava, and pineapple might with advantage be added to the cultivation.

Further, being in the midst of a sugar-producing colony, a very large and important trade might gradually be developed in preserving and canning fruit, notably the papaw and guava.

It may be well to add a few remarks with reference to the health of this colony, concerning which, according to my experience, many very erroneous opinions prevail both in the States and in Europe, Demerara being constantly spoken of as a hot bed of fever. There is very little variation in the temperature, the thermometer giving an almost uniform reading of 84° Fahr. Sea breezes prevail for the greater part of the year. Cases of yellow fever are comparatively rare and may generally be traced to acts of dissipation or indiscretion.

D. T. BUNKER,
Consul.

UNITED STATES CONSULATE,
Demerara, June 6, 1887.

STEAM FLOUR MILLS IN BRAZIL.

REPORT OF MR. TRAIL.

The proposed establishment of several steam flour mills in Rio having caused some discussion in United States newspapers in regard to their probable effect on the importation of American flour, I have collected a few articles published here, which are herewith inclosed, that are of interest both for the information they convey and in that they look upon the enterprise from different points of view.

As the editor of the *Rio News*, of February 5, says:

> Regarding the production of wheat, it may be considered as an indisputable fact that Brazil will never (or at all events, not for many years to come) figure in the world's market as a wheat producer. Certain localities in the south and in elevated regions may produce a small quantity, but of inferior quality, for flour-making purposes.

as a sufficient quantity of the cereal is grown here to satisfy the home demand.

The companies have not obtained, nor as far as I can learn, have they as yet asked for, any concessions from the Government. It is proposed simply to take advantage of existing tariff regulations and to interest Brazilians to an extent that will insure against the placing of wheat on the tariff list. It naturally follows that if the experiment does not prove successful at the start, a strong pressure will be brought to bear on the Government to have the duty on foreign flour increased. Should these undertakings succeed and so drive out of Brazil American flours, our Government will doubtless render to its millers such assistance as the case calls for. In view of our large and increasing purchases of Brazil's staples, it would seem to be only polite on the part of the Empire to show some slight mark of favor to an American industry threatened with destruction.

Of course these mills, if ever erected, will be an experiment whose success is not by any means assured. I am informed from an intelligent source that the whole affair is simply a gigantic speculation, out of which certain parties expect to reap a rich harvest. But for this I cannot vouch.

CHARLES B. TRAIL.

LEGATION OF THE UNITED STATES,
Rio de Janeiro, May 9, 1887.

No. 1.

[The Rio News, February 5, 1887.]

MANUFACTURING IN BRAZIL.

The almost simultaneous organization of two enterprises for the establishment of flour mills in this city has attracted attention to the question, which we have already discussed, as to whether manufacturing in Brazil is merely an exotic plant, flourishing under the protective influence of our tariff system, or whether it may be a legitimate effort at creating a demand for certain articles to be produced in the country, which have hitherto been imported from foreign countries.

We assert, with little fear of contradiction, that at present Brazil possesses none of the attributes of a manufacturing nation. We do not propose to deal particularly with these milling enterprises, beyond noticing that it is estimated that 30 per cent. profit per annum will be divided, and that so handsome a result will stimulate foreign competition, as more moderate profits are acceptable to American and other mill owners. We merely wish to point out how completely in opposition to accepted opinions in economic matters is this rage for establishing manufacturing industries in Brazil.

J. R. McCulloch, the eminent writer on politico-economical questions, in an essay on the circumstances necessary for the progress of manufactures, divides these into moral and physical. The first are freedom for life and property; an inviolate standard of currency; public burdens fairly and equally imposed; justice speedily, cheaply, and honestly administered, and perfect freedom to testators to dispose of their property. To these he adds education of the working classes. Beyond the first of these this is open to contestation—Brazil possesses not a single one. first an abundant supply of

retired from consuming centers that the excessive freights will nullify any saving gained by using the power Nature has furnished.

All these reasons go to show that at present Brazil has none of the attributes of a manufacturing country, and that if mills are springing up over the country it is under the shade of our excessive import duties.

Whether it is justifiable to establish manufactures to stimulate the production of certain articles, is so variously considered that its examination would occupy more time and space than is at our disposition. Only one point may be alluded to in its application to Brazil. Manufacturers do not pretend to reduce the cost of their products to consumers. These prices will be governed by the current quotations of foreign competing goods, and the result can only be the transferring of so much money from the coffers of the treasury, into which it has been paid as import duties, to the coffers of those interested in these manufacturing enterprises. Brazil can ill afford to see her customs revenue decrease, and that the establishment of every enterprise for the purpose of manufacturing tends to this end seems undeniable.

We have no intention of charging the organizers of these enterprises of doing a wrong to the country; they are merely acting as business men, who, the authorities having declared high duties indispensable, are availing of a perfectly lawful means of securing for themselves a part of the profit.

The treasury may destroy these manufacturers at one blow by increasing duties on the raw material, for the supply of which they are dependent on the stranger, or foreign nations, disgusted with the conceit of the idea of constituting Brazil a manufacturing country, may enter upon a system of reprisals, which must result to the prejudice of the empire.

BRAZIL AS A MANUFACTURER.

The well-worn aphorism that Brazil is a country *essencialmente agricola* is now no longer applicable to this land of slaves and coffee. The rest of the industrial world is asleep, and Brazil is about to strip off the cloak that has hidden for so long her industrial powers and lead the van in the army of manufacturers.

Stimulated with the success of her cotton mills, she is now to turn miller also and prove that Brazilian labor is as cheap and efficacious as that of Europe and the States.

What will the Argentines say to a mill that pays 30 per cent. net on its capital?

Where will the American hide himself when he sees a country that produces neither wheat, coal, nor machinery import all these articles in order that her gifted people may fill their unaccustomed stomachs with cheap bread?

No; when the slopes of the *Serra da Mantiqueira* cease to yield coffee; when the *campos* of Oliveira and Bom Successo are furrowed by the civilizing steam-plow, and the tropic skies look down on a sea of golden grain; when the curse of slavery no longer prevents foreign labor, then may Brazil hope to figure among the bread-supplying countries of the world, and be independent of American, European, and River Plate flour.

In a country which is not yet either a producer of grain or manufacturer of flour, technical knowledge of milling is necessarily rare, and a criticism in figures of Gianelli & Co.'s prospectus would neither be satisfactory nor conclusive; but on general principles where flour can be imported at a selling price of 15,000 reis, after paying duties, commissions, and charges to the extent, say, of 15 per cent. on cost and freight price, the advantage of buying from the national mill is more than apocryphal.

Furthermore, as wheat has to be imported, and consequently pays freight, the only advantage the national concern has lies in the protective duty of about 10 per cent. Against this have also to be imported coals and bags, or barrels, all paying freight likewise, so that where foreign competition only pays freight on the net produce of its mills, the national one has to pay on all the gross requirements for making flour. And, even assuming the easy sale of the major part of the produce of the wheat, where is the home outlet for the collateral products of bran, and so forth?

Without questioning the general exactness of the estimate, as per prospectus, there are a few items deserving explanation.

Expediente d' Alfandega on wheat should be 5¼ per cent. on 2,280,000,000 reis (119,700 milreis not 48,000,000 reis).

The production of bran would largely exceed the demand, say 140,000 milreis

Regarding the production of wheat, it may be considered as an indisputable fact that Brazil will never figure in the world's markets as a wheat producer. Certain localities in the South and in elevated regions may produce a small quantity, but of very inferior quality for flour-making purposes. A careful experiment was made near Campinas a few years ago, and the experimenter informed us that the wheat had to be "weeded" by hand two or three times. Think of competing with Russia, United States, or the Argentine Republic, when the Brazilian wheat field must be repeatedly cleaned of weeds by hand!—(EDS. NEWS.)

No. 2.

[News, Rio, February 15, 1887.]

FLOUR MANUFACTURE.*

To the EDITOR OF THE RIO NEWS:

SIR: Knowing, as a frequent reader of your paper, your opinion on the question of native manufactures in this country, the tone of your article in your last number on the simultaneous organization of two new enterprises for the establishment of flour mills in this city did not cause me any surprise.

I am not *periodista*, and all my time is taken up in the management of my business, and I seek to serve, to the best of my abilities, the interest of those who have placed the labor in my hands.

The business man must not necessarily be a man of science, nor has he to be posted in questions of doctrines of economy; but there are, however, certain facts universally acknowledged which are at the reach of all and which can be brought forward in reply to your statements.

Producing countries do not always manufacture their own material, with the exception of those which cannot bear a long voyage, It is for this reason that Australia sends to England her wool, New Zealand her wheat, and the Argentine Republic sends to Europe wool, hides, bones, wheat, &c.

To attack the enterprises "Moinho Fluminense" and "the Rio de Janeiro Flour Mills Company, Limited," because they have to import the prime material, shows a certain (proposital) amount of ignorance and ideas hardly in accordance with the modern age.

It is hard to have to reply to such attacks. You threaten the Brazilian producer with, we do not know what, reprisals on the day when Brazil will get free from the tribute he pays to foreign manufactures.

We believe in a free press, but are surprised to see that amongst distinguished people, and in a country of a spirited race who receive kindly all those who are willing to work honestly, you should think it necessary to run down the interest of enterprises which will bestow benefits on the entire Brazil.

In other words, you would like to defend the manufactures of United States and Argentine Republic to the detriment of the Brazilian public, your attack, being really made on the national industry, and is thus an act of ingratitude to the country in which we are all making a living.

Your assertions offer fair points of controversy, looking at the matter from a poilitical-economist point of view, and though not agreeing with you I quite acknowledge the possibility of your argument as to whether native industry in the abstract is good.

I observe on this count, however, with regret, that you have admitted to your columns an anonymous communication, evidently written by one prompted by personal motives, containing several quite incorrect charges against the statements and figures in my prospectus. I am sorry that you should have allowed an anonymous scribbler, a practice you have so often denounced, who confessedly knows nothing [illegible] to try to damage through your paper the prospects of a bona fide [illegible] liminaries I will ask the permission to reply

As for your statement about a trial having been made, and that the weeding had to be done by hand, it seems to me, if you will pardon the word, ridiculous. No dates nor names are given, and probably the attempt was made upon a small scale, and even had your friend wanted to clean the wheat by machinery, where could he get the needful? The necessary machinery can hardly be expected to arrive here in anticipation of the planting of wheat.

He says flour can be imported at a selling price of 15,000 reis per barrel; and so it can, but what sort of flour? Only the very inferior American or Trieste brands could come for this money to-day.

There is a very great advantage to be had over imported flour over and above the duty, which every practical person would know. The very strict custom of allowance for slight damage to flour is a serious percentage on importations, and there are other advantages which would take too long to go into.

Expediente d' Alfandega is quite right, as figured in my prospectus; your correspondent only displays his ignorance by what he puts forward. Government places a valuation of 40 rs. per kilo on wheat, and on this the expediente is reckoned.

Low flour.—Annual importation of low flour to Rio alone far exceeds 40,000 barrels.

Finally, your experienced correspondent makes a point of the mill having to work all the twenty-four hours; he apparently does not know the A B C of milling, viz, that it is relatively cheaper to run a mill twenty-four than twelve hours per diem.

I hope, however, any damage may do in England the tone of your articles among the friends of Brazil, and who may have taken an interest in the flour-mill company which is being organized there, will be dispelled by the answer I now give you.

Asking your indulgence for any mistake or bad grammar,

I remain, yours, truly,

CHARLES GIANELLI.

RIO DE JANEIRO, *February* 12, 1887.

It is to be feared that Mr. Gianelli misapprehends our position in this matter. If he will refer to an article in another column on this subject of manufacturing in Brazil, he will see that our opinions are based, not upon any personal or captious reasons, but upon the broad grounds of expediency and national advantage. We are ready to offer every encouragement that a newspaper can to every industry, whether agricultural or manufacturing, which shows good prospects of being profitable and beneficial to the country; but when we criticise those which are not adapted to the country, and which cannot be successful without legislative protection, it should hardly be claimed that we are ignorant, or that we are opposed to national industries. There seems to us to be but one alternative in this milling enterprise: either the expected profits will not be realized, even in a small part, or the millers will have to ask for additional favors from the Government to protect them against foreign competition. The first interests us only as mistaken employment of capital, diverting it from industries which really need it; but the second interests us as members of the public at large, whose bread will be made dearer in order to protect an exotic industry. Now, to put the case in plain terms, if the projectors of these mills will guarantee the public against any future meddling with tariffs or taxes in their interests, so that bread may not be made dearer, we shall be delighted to see their milling projects tried. As for the wheat-growing experiment mentioned in our last issue, no "dates nor names" were necessary, for the statement was made on our own responsibility. If the good faith of the editor is not sufficient, Mr. Gianelli can apply to Mr. Bevan of São Paulo, who himself made the experiment near Campinas some three or four years ago, and who afterwards stated the results practically, as they were published in these columns. At the same time it might be well to inquire after a similar trial in Theresopolis, which was made about the same period, and which seems to have dropped out of sight. Furthermore, it might be well to inquire why the attempt at wheat-growing ceased in this neighborhood many years ago, and why wheat production in Rio Grande was nearly stopped after having been an article of export for several years.

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their future growth and prosperity depends upon it; and it deeply concerns the investor, because upon its successful issue depend the safety and profitableness of his investment. And in studying the problem every personal question should be laid aside. As a general proposition, we hold that only those industries should be encouraged which are naturally adapted to the soil, climate, and genius of a people, and which can be carried on without bounties, protection, or other extraneous help. We, of course, do not include those industries, such as the manufacture of guns, gunpowder, or other articles necessary for extraordinary emergencies, on which the safety of the state and people may depend. Were a country to encourage the erection of iron furnaces when it had neither iron ore nor coal, no one would deny for a moment that the undertaking would be decidedly foolish. Likewise, were a country to encourage cotton or woolen manufactures without a domestic supply of the raw material and without coal or adequate water-power, that, too, would be considered foolish. But when we have a case where it is proposed to establish a flour-mill, when the country produces neither wheat to grind nor coal to provide the power nor affords water-power near the ports where the grain must be landed, we are asked to believe that it is a praiseworthy undertaking and promises to yield handsome results. Were Brazil a wheat-producer then the excellent water-power of interior localities might be used, and flour-making would yield good results regardless of the absence of coal. But without wheat, coal, and convenient water-power, and without practical experience, what result can be expected? Except within very narrow limits, Brazil is a country which affords very few facilities for manufacturing. Rough cotton fabrics may be manufactured to advantage, but even these cannot exist without the protection of heavy import duties. Take away these duties, and the factories would be crushed out in an instant by foreign competition, and that simply because elsewhere raw cotton is produced more cheaply and the costs of manufacturing are less. As for the finer grades of cotton fabrics, they cannot be produced here except under conditions very burdensome to the people in the shape of excessive protective duties, and that is a step which no advantage gained from domestic industries can justify. Instead of being a cotton manufacturer, nature designed Brazil to be a cotton-producer, and there is just where all public encouragement should be directed. Before seeking to encourage manufactures, the state should seek to effect cheaper production and lower costs of transportation, so that the raw material in Brazil might compete favorably with that of other countries. To encourage manufacturing under existing conditions is beginning at the wrong end of the series. Another good illustration of the error of seeking to establish an industry where the conditions are not favorable may be seen in Brazil's one iron-making establishment. This enterprise was undertaken three-quarters of a century ago, in connection with a mine discovered nearly two centuries ago, and although experienced men have been procured elsewhere and costly machinery of every description purchased, it is even now not self-supporting. No one knows how much money has been wasted upon it, but no one will doubt that it would have purchased all the manufactured iron the country needed many times over. The trouble is that the country lacks coal and the genius for carrying on such an undertaking. Brazil has been richly endowed in certain ways, and it would be very wise if those endowments were generally recognized and utilized. Thus far no country has shown itself able to compete with Brazil in the production of coffee, and in this one industry alone there is a mine of wealth. The country is also highly adapted for the cultivation of cotton, tobacco, sugar, rice, fruits of various kinds, and many other products of the soil. Another inexhaustible mine of wealth lies in rubber gathering. Then, in so large a country there can be cultivated a great diversity of small products, all of which might, under favorable conditions, produce good results. Were intelligent attention given to these instead of running after such will-o'-the-wisps as exotic manufactures, wheat-growing, &c., the country would certainly be the richer and more prosperous for it.

No. 4.

ors and of the country. If our statements and deductions are not favorable to the enterprises discussed, then it should be proved, not that we are prejudiced against individuals or the country, but that our information is at fault and our reasoning wrong, or else it must be admitted that we are correct.

In seeking to demonstrate that a business man may not be a "scientist" and still be able to initiate and carry on enterprises of this character, Mr. Gianelli is in one sense right. A business man may know nothing whatever of the science of political economy, in fact may never have seen a book on that subject, and yet he may be just as scientific in his methods and principles, just as exact in his application of economic principles as the most learned of political economists. After all, political economy is nothing more than the reduction of sound business methods to terms and classification. Political economy does not teach us to manufacture flour where there are no wheat, coal, and manufacturing facilities, nor does common sense. Mr. Gianelli's "rule of thumb" may do very well in small undertakings where the elements of risk are few and simple. But when he reasons "so many tons of wheat and of coal costs so much, and so much flour is produced which, when sold, yields so much, therefore the result is a profit of 30 per cent.," we have good grounds for denying the result and insisting that the factors used have not been correctly taken. More than that, the problem is not wholly a mathematical one, for which reason the investor is bound to consider factors outside the figures given, and it is to these we have chiefly directed attention.

No. 5.

[Translation from the Diario de Pelotas.]

WHEAT GROWING.

We call the attention of the farmers of the province to the publication which we insert in the place of honor in this journal.

It is of such scope, of such great importance for the agricultural future of our province, that we cannot hesitate to co-operate in making generally known the patriotic desideratum which the authors of that publication propose.

The province produces better wheat than that which we import.

There was a time when its greatest wealth was the export of this cereal; there was no better paying plantation than one of wheat, and for us to regain, if not to exceed, the prosperity of a former time the opportunity is offered our farmers of obtaining, in such quantities as they may need, seed (wheat) of their own choice, subject only to the condition of their returning, after the harvest, a portion equal to what they received.

Farmers have to-day the certainty of a sure and easy sale of all the grain they can raise, whether they wish to be remunerated by the steam-mill of Messrs. D. Borges & Co., established in this city, or by the great steam-mill which will work on a large scale in the capital of the Empire, and whose directors are the initiators of the propaganda to which the publication which we insert in the place of honor of our paper refers.

Farmers, whether on a small or a large scale, ought not to miss the opportunity of providing themselves with excellent seed, and should devote themselves with perseverance to a culture without doubt unsurpassed by any other among us in its promising results.

We call the attention of all our readers to the publication which suggests these lines, and at the same time request them to transmit the news to those who are not aware of it.

It is a benefit which they bestow on the future of our dear province.

Article referred to above.

To the farmers of the province:

Wheat growing on a large scale promises to be developed in this province, destined, by the fertility of its soil and its kind climate, to be the granary of the Empire.

There is already working in this city an important milling enterprise of Messrs. D. G. Borges & Co., and the flours they produce are undeniably of superior quality.

tribute it pays in the importation of foreign flours, and will in its turn be an exporter, going to meet with advantage in the consuming markets the products of the United States, Rio de la Plata, Chili, &c.; for it is proved that not only are the wheats here of better quality but that the harvests also give results superior to those of other countries.

With the object, then, of encouraging and helping the farmers in the development of the culture of good wheats, Messrs. Gianelli & Co. offer seed of the best quality from Australia, New Zealand, United States, &c., on the following terms:

(1) There will be supplied to every farmer, who may desire it, the quantity and quality of seed-wheat he asks for and which suits the quality of the land he ought to plant.

(2) Seed to be delivered in this city free of all expense.

(3) The farmer pledges to return, after the harvest, a quantity of wheat equal to the seed which he may have received.

(4) Should the receiver of seed fail to comply with this obligation, he becomes a money debtor to the equivalent value for the seed which he has received and at the current market price for wheat.

All who desire to be supplied with seed should send their orders by the 15th of May next, so that delivery may be made during the month of June to Messrs. Montero & Co., Padaria Mechanica, Pelotas.

No. 6.

[Trade and Export Journal, March, 1887.]

FLOUR MILLS IN BRAZIL.

Exports of American flour to Brazil, although widely fluctuating from year to year, have, on the whole, been increasing, if we review the past fifteen fiscal years. During the last fiscal year we shipped to Brazil 542,499 barrels, and in the year preceding 674,230 barrels, the maximum having been reached in 1883, when no less than 739,441 barrels left our shores for that country. The following is a statement of our flour shipments to Brazil during three successive quinquennial periods:

	Barrels.
1872–'76	2,458,255
1877–'81	3,031,334
1882–'86	3,224,095

The value of our domestic exports to Brazil the last fiscal year was $6,480,738, and in this amount flour was represented by $2,674,327. On the other hand our imports of leading Brazilian products have increased since 1870, as under:

	1870.	1886.
	Pounds.	*Pounds.*
Coffee	183,413,456	392,058,002
Sugar	24,145,331	223,962,642
India-rubber	5,234,294	17,462,699

Total imports from Brazil.	
1870	$25,161,219
1886	41,907,532
Total American domestic exports to Brazil.	
1870	$5,852,191
1886	6,480,738

necessary.

build flour mills in Rio de Janeiro, and, under concessions from the Brazilian Government, to import wheat from the Argentine Republic free of duty. Two large companies are at present in course of formation in London. The aggregate capital supposed to be needed is £500,000, in shares of £10; the capacity of the mills is to be several thousand barrels daily.

It is at present only by the closest figuring that our millers are able to sell our product in that country, and if the mills to be built in Rio are granted the advantage of grinding wheat on which no import duty is to be levied, while the duty of 75 cents per barrel on flour sold by American millers is maintained, the natural consequence will be that our flour will be driven to the wall.

Argentine wheat is not quite as good as ours, but it is very much cheaper, and the distance of transportation is only one-fifth as great. The enterprise projected by these English syndicates is precarious, and may prove disastrous; for if at any time the Brazilian Government should feel inclined to take the duty off of flour, or put an equivalent tax upon wheat, the milling machinery would not be worth more than the price of old iron in Rio. That mills of the great size and capacity named will pay in Brazil is very doubtful. Profitable milling is now a science, and only successful when watched very closely and managed very economically; but the American industry can be shut out and the trade lost, even though at the end of two years the English enterprise should collapse entirely and the shares be valueless.

Richmond, Baltimore, New York, and, in fact, the whole country would be affected, so far as milling interests are concerned. Richmond has milled flour for Brazil for one hundred years. All of the facts will be put squarely before the Brazilian Government, and it will be asked by ours either to take off the duty on flour or to put an equivalent duty on wheat.

Not having the treaty of commerce between the United States and Brazil before us, we cannot determine to what extent our Government would be justified in making remonstrances. It seems, however, that the thing is to be thoroughly investigated, and Brazil will no doubt give due consideration to whatever wrong or injustice there might be in thus favoring the subjects of Great Britain to the exclusion of citizens of the United States, and, we may add, of Austria-Hungary, whose flour would also be barred out.

Brazil would certainly not expose her planters, if things came to the worst, to having a discriminating duty levied on Brazilian coffee, and Dom Pedro II. is too much alive to the interests of the coffee-planting regions of his Empire to provoke retaliation to which we might, perhaps, be fully entitled. But however all this may be, our flour millers have done well in stirring at once in a matter so important.

FLOUR IN COLOMBIA.

REPORT OF CONSUL VIFQUAIN.

Forty dollars and more per barrel is the price of flour here along the coast, a great portion of which is customs duties. As a result, the imports of flour from the United States are not what they might be, the laboring classes being unable to use such an expensive article.

I estimate, from figures collected, that where 1 barrel of flour for consumption, say 5 bushels of wheat, is imported now, 8 barrels, or 40 bushels of wheat in the grain, would be imported and consumed if it were manufactured here and sold at "reasonable" rates, *i. e.*, from $5 to $7 for 100 pounds weight. That is to say, if 100,000 barrels are imported from the States for the Colombian market, outside of the Isthmus of Panama, the equivalent of 500,000 bushels of wheat, eight times this amount in wheat, or 4,000,000 of bushels of wheat, would be imported

market for wheat that we have lost in Europe, and facilitate perhaps not a little in enabling the fixing of the standard value of silver as a staple in the United States instead of in Great Britain, for the South American States are essentially silver communities. I might also call your attention to the fact that the wheat for this coast can come all the way from Saint Paul, Minn., or Omaha, Nebr., by means of water transportation.

I am led to believe that if parties in the United States were to establish flouring mills at this place, or at Carthagena, all the machinery for these mills, and all the material necessary for their construction, would be admitted free of duty; nay more; I make bold to say that every bushel of wheat needed for these mills would be admitted free of duty; and this is the one great point I wish to make in this report. Unable to create such a market for our flour as we ought to have, we should strive to create one for the raw product.

The consummation of this by American millers would be an entering-wedge, which would be of telling effect between the trade of the United States and Colombia for the future. Concessions by the Government of Colombia can be secured for all this, which will, so to speak, give a monopoly to the United States for the wheat to be used here.

VICTOR VIFQUAIN,
Consul.

UNITED STATES CONSULATE,
Barranquilla, July 6, 1887.

VENEZUELAN NATIONAL COINAGE LAW.

TRANSMITTED BY CONSUL BIRD.

The Congress of the United States of Venezuela decrees:

ARTICLE 1. The coin of the Republic of Venezuela shall consist of gold, silver, and nickel pieces. The kilo of gold, as well as of silver, shall be estimated as divided into one thousand equal parts.

ART. 2. The law for gold shall be 900 thousandths; the law for silver shall be of two classes, one of 900 thousandths and the other of 835 thousandths.

ART. 3. The monetary unit of the Republic shall be the silver bolivar, that shall be estimated as divided into one hundred parts or centimes.

ART. 4. The kilo of gold shall be divided into five sizes for coinage, to wit: one size of 31, one of 62, one of 155, one of 310, and one of 620. Accordingly, each one of 31 parts shall weigh 32 grams, 25.806; each one of 62 parts shall weigh 16 grams, 12.903; each one of 155 parts shall weigh 6 grams, 45.161; each one of 310 parts shall weigh 3 grams, 22.580; and each one of 620 parts shall weigh 1 gram, 61.290.

ART. 5. The kilo of silver of 900 thousandths of law shall be of only one size, of 40 parts and 25 grams weight. The kilo of silver of 835 thousandths shall be of four sizes; one of 100 parts of 10 grams weight each; one of 200 parts of 5 grams of weight each; one of 400 parts of 2 grams 50 hundredths weight each; and one of 1,000 parts

[illegible] classes of gold coins will be the

The 5 bolivar coin of 900 thousandths of law and 25 grams weight.
The 2 bolivar coin of 835 thousandths of law and 10 grams weight.
The 1 bolivar coin of 835 thousandths of law and 5 grams weight.
The 50 centimes of 1 bolivar coin of 835 thousandths of law and 2 grams, 50 hundredths weight.
The 20 centimes of 1 bolivar coin of 835 thousandths of law and 1 gram weight.

ART. 8. The gold and silver coins shall be of circular form; their margin or edge shall be corded or fluted, and the face shall have a border, and of concave surface towards the center of the coin. The different coins shall have the following diameters:

Gold coins.—The 100 bolivar coin, 35 millimeters; the 50 bolivar coin, 28 millimeters; the 20 boliver coin, 21 millimeters; the 10 bolivar coin, 19 millimeters; the 5 Bolivar coin, 17 millimeters.

Silver coins.—The 5 bolivar coin, 37 millimeters; the 2 bolivar coin, 27 millimeters; the 1 bolivar coin, 23 millimeters; the 50 centimes of 1 bolivar coin, 18 millimeters; the 20 centimes of 1 bolivar coin, 16 millimeters.

ART. 9. The type, weight, law, value, and other specifications of nickel coins will be fixed by special law.

ART. 10. The model of gold and silver coins shall be as follows: On the obverse face they will bear the image of Bolivar, looking to the right, with the inscription "Bolivar Liberator" on the upper part; on the reverse face they will bear the national arms, with the inscription "United States of Venezuela" encircling them; at the base will be inscribed the weight and law respectively of each coin, and beneath the year of coinage.

ART. 11. The coinage of money will be made under the conditions of the present law.

ART. 12. Deviation from standard weight of gold coins will be allowed as follows: One thousandth in the 100 and the 50 bolivar coins; two thousandths in the 20 and the 10 bolivar coins; three thousandths in the 5 bolivar coins.

Deviations from standard weight of silver coins will be allowed as follows: Three thousandths in the 5 bolivar coins; five thousandths in the 2 and 1 bolivar coins; seven thousandths in the 50 centimes of 1 bolivar coins; ten thousandths in the 20 centimes of 1 bolivar coins.

ART. 13. Deviation from legal standard will be permitted as far as two thousandths in all gold coins and the 5 bolivar silver coins; and as far as three thousandths in the silver coins of 835 thousandths legal standard.

ART. 14. There shall be coined 8,323,628 bolivars of silver money of 900 thousandths legal standard, amounting to 3 bolivars and 75 centimes for each inhabitant:

ART. 15. There shall be coined 2,774,542 bolivars of silver money of 835 thousandths legal standard, amounting to 1 bolivar and 25 centimes for each inhabitant: *Provided*, The National Congress shall, in future, fix the quantity of silver money that may be conveniently coined as the greater activity of transactions and the consequent necessities of circulation may require.

ART. 16. The national gold and silver coins emitted under the law of March 23, 1857, and the decree of May 11, 1871, shall continue to circulate as till now, that is to say, with the same value as therein prescribed, to wit: The piece of gold at the value of 25 bolivars; the pieces of silver at the values of 5 bolivars, 2 bolivars and 50 centimes, 1 bolivar, 50 centimes of a bolivar, and 25 centimes of a bolivar: *Provided*, The nickel coins of one and of 2½ cents, coined under resolution dictated by the ministry of hacienda, June 14, 1876, shall continue to circulate at the value of 5 centimes of a bolivar and of 125 thousandths of a bolivar respectively. The national copper cents shall circulate at the value of 5 centimes of a bolivar.

ART. 17. The moneys coined under this law shall be received in all the public offices.

ART. 18. The silver moneys coined under this law, under the decree of May 11, 1871, under the law of March 23, 1857, and under that of March 31, 1879, are obliged to be received by private persons, as follows:

Those of 900 thousandths to the sum of 500 bolivars.
Those of 835 thousandths to the sum of 50 bolivars.
Those of nickel and copper to the sum of 20 bolivars.
These sums shall be receivable in each payment.

ART. 19. Foreign gold coins will circulate in the Republic as if they were merchandise; consequently their price remains subject to the relation existing between supply and demand;

or document of any kind shall be admitted in which the monetary values are not expressed in the new national monetary unit, except in those cases where quotations or references are made or where copies of papers formerly written are introduced.

ART. 21. All counterfeit money, wherever found, will be destroyed, the metal delivered to the discoverer, and the person guilty of the falsification, or his accomplice, will be punished under the penalties established by special laws on the subject.

ART. 22. Perforated, filed, or worn gold coin may be refused from circulation.

ART. 23. Silver coins that are filed, perforated, or worn until they have lost their type on both sides may be refused from circulation.

ART. 24. Those who may refuse to receive lawful money shall be punished in double the amount they may have refused to accept.

ART. 25. The National Executive shall dictate the necessary rules and regulations in order that this law may be punctually executed.

ART. 26. The decree of March 31, 1879, and the resolutions contrary to this law are abrogated.

Given in the Palace of the Federal Legislature, and sealed with the seal of the National Congress, in Caracas, May 27, 1887, year 24 of the law and 29 of the federation.

NICOLAS M. GIL,
President of the Senate.
AGUSTIN AGÜERO,
President of the House of Deputies.
FRANCISCO VARGUILLAS,
Secretary of the Senate.
J. NICOMEDES RAMIREZ,
Secretary of the House of Deputies.

Federal Palace in Caracas, June 2, 1887, year 24 of the law and 29 of the federation.

Execute it and take care of its execution.

GUZMAN BLANCO

Countersigned:
V. IBARRA,
Minister of the Interior.

VENEZUELAN MINING LAW.

The Congress of the United States of Venezuela decrees:

ARTICLE 1. All mines in the Republic are the property of the state in which they are located, and will be administered by the federal executive, being regulated by an uniform system of working, according to the provisions of No. 15 of article 13 of the federal constitution.

ART. 2. Mining matter includes all inorganic, metalliferous, combustible, saline, and calcareous substances, fossil and fertilizing materials, precious stones, and the products of the depths of the seas and territorial waters.

ART. 3. Mines are defined to be masses or deposits that may be found on the surface or in the bowels of the earth, that contain, in veins, pockets, layers, or any other form, precious stones, gold, silver, platinum, mercury, lead, iron, copper, tin, zinc, calamine, bismuth, cobalt, arsenic, manganese, antimony, cupel, plumbago, or any other metallic substance, sulphur, mineral coal, fossil woods, alum, asphalt, phosphates, guanos and other fertilizing substances, natural cements, uranium, bituminous materials, oils and mineral waters, salt and products of the seas and territorial [illegible] and other substances assimilating to those enumerated, discovered or that [illegible] grindstones, building

Given in the federal legislative palace, and sealed with the seal of the national Congress, in Caracas, May 26, 1887, year 24 of the law and 29 of the federation.

NICOLAS M. GIL,
President of the Senate.
AGUSTIN AGÜERO,
President of the House of Deputies.
FRANCISCO VARGUILLAS,
Secretary of Senate.
J. NICOMEDES RAMIREZ,
Secretary of the House of Deputies.

Federal Palace, in Caracas, May 30, 1887, year 24 of the law and 29 of the federation.

Execute it and take care of its execution.

Countersigned:

GUZMAN BLANCO.

MARTIN J. SANAVRIA,
Minister of Fomento.

BASIC SLAG AS A MANURE.*

[From the Newcastle Daily Chronicle, July 22, 1887.]

By Professor Kinch, *of the Royal Agricultural College, Cirencester.*

In the year 1879 Messrs. Thomas and P. C. Gilchrist took out a patent for a metallurgical process which was destined to effect a great improvement in the manufacture of steel, and to produce a very efficient manurial agent. Of the known deposits of iron ore in Great Britain, about 85 per cent. are phosphoric to the extent of containing more than one part of phosphorous to one thousand of iron; probably nearly the same proportion of the iron ores of the world are phosphoric to this or a greater extent. In smelting the iron ore to make pig-iron, practically the whole of the phosphorus of the ore remains in the pig. Such pig-iron is not suitable for making steel by the ordinary Bessemer or by the Siemens process, as the phosphorus remains in the steel and renders it "cold short." In making crucible-steel by the cementation process, the phosphorus is removed by puddling or a similar process, but this method of steel-making is only used for a very small proportion of the steel now used. It followed that only about 15 per cent. of the iron ores, mostly hematite, which were nearly free from phosphorus, could be used in steel-making. Pig-iron made from the Cleveland, Staffordshire, Scotland, and similar iron ores contains phosphorus varying from about 0.8 up to 3 per cent. of phosphorus. Such pig-iron can now by the Thomas-Gilchrist basic process be converted readily into first-class steel and ingot iron. The process is most commonly used as a modification of the well-known Bessemer process, though it is also used with the Siemens process of steel-making. Essentially, the procedure is as follows: The "converter" into which the molten cast-iron is run is lined with strongly ignited magnesian limestone, instead of with the usual siliceous ganister. Lime to the extent of about 15 to 20 per cent. of the weight of cast iron is thrown into the converter at the beginning of the "blow." The "blow"—a powerful blast of air forced through the molten metal—is conducted as in the ordinary Bessemer plan, but is continued for about one and a half to five minutes longer than in the ordinary process. The oxygen of air unites with the impurities of the pig-iron; with silicon to form silica; with carbon to form carbonic acid; with manganese to form oxide of manganese; with sulphur to form oxides of sulphur; and, finally, with phosphorus to form phosphoric acid. This phosphoric acid combines with the lime present to form phosphate of lime. A certain quantity of the iron is also oxidized to form ferrous and ferric oxides. When the "blow" is finished, in about fifteen minutes, most of the oxidized substances are found floating on the surface of the steel as slag or "cinder," which is removed by tipping

The slag, on being freed from metallic iron and finely powdered, has about the following average percentage composition:

Phosphoric acid	16.5
Lime	49.5
Magnesia	4.5
Ferrous oxide	9.5
Ferric oxide	3.5
Manganese oxide	4.0
Sulphur and sulphuric acid	0.5
Silica	7.5
Alumina, moisture, carbonic acid, vanadium oxide, alkali, &c	4.5
Total	100.0

This percentage of phosphoric acid is equivalent to 36 per cent. of phosphate of lime. By a recent slight modification in the details of working, part of the slag may be obtained containing up to 20 per cent. of phosphoric acid, that is equivalent to 43 per cent. of phosphate of lime. The steel from this process is very free from phosphorus, containing from none to about 0.06 per cent.

Already, in 1882, about half a million tons of steel were made by this basic process, and since then it has greatly extended. The following table shows the amounts made in different countries in 1885 and 1886. In England the chief works using the process are in the Cleveland district at Middlesbrough, and in South Staffordshire at Wolverhampton.

The total make of steel and ingot iron from phosphoric pig by the process during the twelve months ending 31st October, 1886, amounted to 1,313,631 tons, being an increase over the previous twelve months of about 368,314 tons. Of this make no fewer than 927,284 tons were ingot iron containing under 17 per cent. of carbon.

The makes of the various countries for the twelve months ending 30th September, 1885, and 31st October, 1886, respectively, were as follows:

	1885.		1886.	
	Total.	With under .18 per cent. carbon.	Total.	With under .17 per cent. carbon.
	Tons.	*Tons.*	*Tons.*	*Tons.*
England	145,707	70,813	258,466	161,908
Germany and Austria	617,514	424,862	883,859	651,523
France	130,582	62,390	122,711	77,141
Belgium and other countries	51,514	42,118	48,595	36,712
Total	945,317	600,183	1,313,631	927,284

These 1,313,631 tons of steel represent nearly 390,000 tons of slag, containing about 35 per cent. of phosphate of lime.

With the formation of this phosphoric slag arose the question can it be used as a manure and be made to supply farm crops with phosphoric acid? Some rather rough experiments were made in the neighborhood of works producing it, giving somewhat varying results. It was a question whether the phosphoric acid was mainly combined with lime or oxide of iron, in which latter case it was unlikely to have much manurial value; also, it was imagined that the ferrous oxide present might be injurious. It is now known that the phosphoric acid in the slag is com-

that it is mainly present as tetracalcic phosphate, $Ca_4 P_2 O_9$, as ... this phosphate often occur in masses ... known by several

Scores of patents were taken out for processes having the object of utilizing the phosphoric acid of the slag mainly for agricultural purposes, but only one of these was actually worked to any considerable extent at Schalke, in Germany, where precipitated phosphate of lime, consisting mainly of dicalcium phosphate, is made, containing about 32 to 33 per cent. of phosphoric acid, equivalent to 70–73 per cent. of ordinary phosphate of lime. This is made by Scheibler's process, treating the slag with hydrochloric acid and precipitating the dissolved phosphate with lime and separating the precipitate with the aid of a filter press. The precipitated phosphate has been used with most excellent results, but its high price prevents its general use. Where the cost of carriage of the phosphate is great, and where hydrochloric acid is very cheap; the process may be economical; but there is now abundant evidence to show that the raw cinder may be advantageously used as a phosphatic manure if only it be sufficiently finely ground. The grinding was at first a stumbling block, as the cinder contains lumps and fragments of steel which cause havoc in ordinary grinding apparatus; but this difficulty is now overcome, and large special machinery for grinding is erected, or in course of erection, in many places on the continent and in this country at Middlesbrough and Wolverhampton. From 1882 onwards numerous field experiments have been made with the ground slag in Germany, and to a less extent in other parts of the continent. Dr. P. Wagner, director of the agricultural experiment station at Darmstadt, has carried out, during the last three years, a very careful and interesting investigation, comprising over 300 comparative experiments on five different soils in pots with barley, oats, mustard, wheat, and flax. In Wagner's 1886 experiments the Thomas-Gilchrist slag in different degrees of fineness was compared with superphosphate, Peruvian guano, bonemeal, and coprolites, and on wheat, flax, oats, and barley.

Taking the average of the results with barley on a sandy loam containing 1.9 per cent. of carbonate of lime, with wheat and with flax on a heavy loam containing 6.5 per cent. of carbonate of lime, Wagner found that taking the value of the phosphoric acid in superphosphate, as measured by increase of crop the first year, at 100, then the phosphoric acid in the finely divided slag is worth 61; in coarsely ground slag it was worth but 13; and in ground coprolites only 9. We do not intend to refer further to continental results, nearly all of which have been favorable. A résumé of the most important will be found in pamphlets by Dr. M. Fleischer, Berlin, 1885; Dr. P. Wagner, Darmstadt, 1887; L. Grandeau, Paris, 1886; and H. and E. Albert, Biebrich, 1887.

We now will give a summary of the principal results obtained in the field with the basic cinder in this country.

The following are results of field experiments made with swedes in 1885 and 1886:

Experiments by Mr. Wrightson and Dr. Munro, in 1885, *at Ferryhill, Durham on a stiff, deep clay, deficient in lime.*

Manuring.	Per acre.	Roots per acre.	
	Cwt.	*Tons.*	*cwt.*
Unmanured	.....	2	7½
Mineral superphosphate	4	11	17½
Basic slag	4	13	15

Experiments by Mr. Wrightson and Dr. Munro, in 1885, *at Downton, Wilts, on a light, chalky soil.*

Manuring.	Per acre.	Roots per acre.	
	Cwt.	*Tons.*	*cwt.*
Unmanured	.....	2	16¼
Mineral superphosphate	4	6	1
Basic slag	4	5	11½

Experiments by Professor Kinch and Mr. Swanwick, in 1886, *at the Royal Agricultural College, Cirencester, Gloucestershire, on a calcareous clay resting on the Great Oolite (plots in triplicate).*

Manuring.	Per acre.	Roots per acre.	
	Cwt.	*Tons.*	*cwt.*
Unmanured	.....	7	18¼
Basic slag	4	11	3¼
Basic slag	7	11	19¼
Basic slag	20	11	8
Precipitated phosphate	1½	11	16¼
Mineral superphosphate	3	12	13¼

In another field, on a similar soil, 6 cwt. and 10 cwt. of slag gave results equal to 3 cwt. of superphosphate and an increase of 3½ tons of roots per acre over unmanured land.

Experiments by Mr. T. A. Dickson, in 1886, *at Kinnersley, Herefordshire, on a red loam resting on a gravelly subsoil.*

Manuring.	Per acre.	Roots per acre.	
	Cwt.	*Tons.*	*cwt.*
Basic slag	5	15	2
Mineral superphosphate	4	12	5

Experiments made by Mr. R. Warington, F. R. S., on Sir J. Lawes's farm at Rothamsted, Herts, a heavy loam resting on clay over chalk.

Manuring per acre.	Roots per acre.	
	Tons.	*cwt.*
15 tons dung and 8 cwt. basic slag	19	14¾
15 tons dung and 2 cwt. superphosphate	19	14
15 tons dung and 6 cwt. basic slag	17	16
15 tons dung and 2 cwt. superphosphate	17	5¾
15 tons dung and 4 cwt. basic slag	17	2¾
15 tons dung and 2 cwt. superphosphate	17	19¾
4 cwt. basic slag	9	4
2 cwt. superphosphate	9	4¾

Experiments made by Mr. W. Field, jr., at Redbourne, Herts, on a heavy loam in poor condition.

Manuring.	Per acre.	Roots per acre.	
	Cwt.	*Tons.*	*cwt.*
Basic slag	8	12	5¼
Superphosphate	6	12	12¾

Experiments on turnips, in 1886, *by Dr. J. Aitken, at the Highland and Agricultural Society's Station at Pumpherston; and by Mr. David Wilson, at Carbeth, Scotland (with the same amount of phosphoric acid in superphosphate and in basic slag).*

Roots per acre.

In 1886 an extensive series of experiments was made in the Royal Agricultural College Farm, Cirencester, by Mr. Swanwick and myself on potatoes, the general results showing that 10 cwt. of slag produced very nearly the same effect as 6 cwt. of mineral superphosphate (26 per cent. soluble phosphate). A few experiments have been made with grass. Thus at Downton, in 1885, 8 cwt. of basic cinder produced half a ton of hay increase, being considerably more than the increase produced by superphosphate.

Experiments made by Professor Kinch on grass at the Royal Agricultural College, Cirencester, in 1886 (*plots in duplicate*).

Manuring.	Per acre.	Hay per acre.	
	Cwt.	*Tons.*	*cwt.*
Unmanured	.....	1	2¼
Ground coprolites	3	1	9
Basic cinder	6	1	10¼
Mineral superphosphate	3	1	12¼

These experiments show clearly that this basic slag can supply phosphoric acid to plants. It must, however, be in a fine state of division, and the purchaser must be careful to obtain a guarantee of its fineness, as well as of its contents in phosphate. It can now be bought of such a fineness that the whole of it passes through a sieve with 100 wires to the linear inch, that is, 10,000 meshes to the square inch, and by far the greater part of it through a sieve with 150 wires to the linear inch. This degree of fineness leaves nothing to be desired.

Comparing the effects of ground slag with superphosphate in increasing the yield of land, it appears that in order to produce the same results in the first year a larger dressing of phosphate must be applied in the form of slag than in the form of the soluble phosphate of superphosphate. The results so far indicate that about 5 cwt. of slag gives the same result as 3 cwt. of ordinary mineral superphosphate, or, what is nearly the same ratio, three of slag to two of superphosphate. If 6 cwt. of slag be applied, this contains almost exactly twice as much phosphoric acid as 4 cwt. of common mineral superphosphate, and as the result on the first year's yield is approximately the same, it follows that there is a much larger residue of phosphoric acid left in the soil by the dressing of slag, which residue is presumably slowly available for succeeding crops. The slag has given good results on very different soils and of almost all kinds; probably the best results will follow its application to peaty soils, heavy clays, and perhaps sandy soils poor in lime. On such soils the lime present in a free state may be valuable. On ordinary loams it has given excellent returns, and even on calcareous soils, though probably on these latter superphosphate will always retain a special value as an application for root crops. Generally speaking, the basic slag should be applied earlier in the season than superphosphate, as it takes rather longer to act; thus on pastures it may be used in February or early in March, and for spring corn harrowed in before sowing.

For an ordinary dressing 5 cwt. or 6 cwt. is required, this being, as before indicated, equivalent in its effects to about 3 cwt. or 4 cwt. of ordinary mineral superphosphate.

When used on poor soils or soils in low condition in conjunction with potassic and nitrogenous manures, it is generally advisable to sow it separately and earliest, and not to mix it with the other manures; this, if mixed with kainit and left for a day or two, the mixture becomes hard. It should never be mixed with sulphate of ammonia, as the lime in the slag liberates ammonia from its salt, and loss occurs; when these two manures are applied to the same crop, say to potatoes, the slag should be put on the soil first.

In the above remarks reference has been made only to special manures, and to only a few of these; space has not allowed us to deal with the whole question of general manures, like farm-yard manure, seaweed, and the like. This is not that we undervalue such manures, for, after all, "there's nothing like muck," if only it be judiciously used and there be enough of it; but, notwithstanding that on most

NOTES.

Scarcity of grain in Asia Minor.—Consul Bissinger writes, July 16, 1887, on the drought and distress in Cilicia, province of Adana:

The great suffering from distress and drought in Cilicia, a district in the province of Adana, within this consular jurisdiction, has enlisted the sympathy of the Turkish Government, and by imperial command his excellency the Grand Vizier, it is understood, will take immediate steps, and is now actively engaged in devising the best means for the alleviation of the suffering population, which numbers many thousand souls.

His Imperial Majesty the Sultan, ever ready to come to the rescue of the needy and distressed, is said to have caused orders to be issued to the governor-general of Adana to send daily reports to His Imperial Majesty as to the actual condition of the suffering subjects within his province, and to propose the measures best calculated to relieve the deplorable condition of this unhappy people.

In this connction it is most gratifying to record the many noble, charitable, and unselfish acts of our American missionaries, whose sphere of usefulness is among this afflicted class, to alleviate, as far as it may lie within their power, the distress of those who are suffering from the disastrous effects of the drought.

Dr. Metheny, of Mersine, one of these missionaries, is also a most efficient physician, who, without distinction of race or creed, treats all poor people applying to him for relief, supplying them with medicines procured direct from the United States. In many cases he furnishes food and clothes gratis to the needy applicants, and during the present dearth he is supporting many destitute families, providing clothes and beds for those who are sick and suffering. The Rev. Mr. Montgomery is not behind in this noble example of philanthropy, and is distributing money among the most distressed within his very extensive field of mission work.

The vilayet of Adana is one of the smallest provinces within the imperial Ottoman dominions, its population being approximatively estimated at 250,000 souls. Of these, thousands are said to have been driven by misery to other provinces or to have died from sickness or privation.

Some of these luckless people migrated to the neighboring provinces, and finding no hospitality, for their inhabitants were similarly afflicted, have been compelled to return to their famine-stricken homes in the most wretched and dilapidated condition.

Mortality among cattle and flocks is also greatly on the increase, and the price of a bullock-skin, formerly worth from 50 to 60 piasters, equal to $1.78 to $2.15 United States currency, now scarcely realizes 20 piasters (71 cents).

The rivers that have from time immemorial been navigable by small boats at all seasons of the year have now become so shallow that a man on horseback can cross them and in some places they are even fordable on foot, while the mountain streams are almost entirely dried up; in some parts where water was always in superabundance, there is now scarcely sufficient for drinking and ordinary domestic purposes; such a deplorable condition of things never before, in the memory of any man of the present generation, existed in these otherwise most productive and fertile regions.

In the center and upper regions of the Taurus mountains, inhabited by about 130,000 people, some cereals were grown, and the dwellers of Cilicia, between Mersine and Anamour, upon the failure of the grain crop, had the wisdom to replace it by irrigating their fields from the waters of the rivers that traverse this

[illegible] refuge in the high-

now realizing from the sale of their furniture, which among that class of people is most scanty, to support their families will soon be exhausted. To these unfortunates the future, indeed, looks dark and disheartening.

It is hoped and expected that the Government will take the subject of irrigation into serious consideration. In olden times the vast plain was entirely irrigated by the rivers that pass through it. The Romans were in the habit of damming out the required quantity from the waters of the Djihoun, Seihoun, and Cydnus, and conduct it to the foot of the mountains from a high level on both sides of the rivers along the surface of the ground, accumulating earth on both sides of its banks, making in this way a wide, high canal, extending from the mountains on both sides of the rivers in various directions to the sea. The farmers had thus the water within their reach and could easily, and at little expense, by means of subsidiary canals, conduct any portion of it to irrigate their lands. Such elevated canals exist to-day in various parts of Europe (France, Spain, and Italy).

These long ancient canals, extending from the foot of the mountains to the sea in all directions, are still extant, and need but to be freed from the rubbish that centuries have accumulated to be again made serviceable. The adoption of this system of irrigation, it is believed, would be far more economical than any other known means of irrigation, and a scheme to carry it into practical execution is, I understand, already on foot with reference to the waters of the river Seihoun—the most important in the vilayet of Adana—if a concession for thirty years can be secured from the Imperial Ottoman Government.

The usual incidents consequent from great distress have not been wanting, and some disturbances and clamor for food are reported to have taken place; but the local government quickly responded to the importunate demands of the famished and formed a council, which decided, pending superior orders, to dole out rations of bread to the famine-stricken sufferers.

But while this action of the local authorities, the generous assistance of the American missionaries, and the proffered succor of the Imperial Turkish Government, as well as of His Imperial Majesty the Sultan, individually is most commendable, it will scarcely be sufficient to reach the wants of all and alleviate every class of suffering. Many well-to-do people (according to the report of one correspondent), and inhabitants possessed of large houses and farms, are actually in want, and everything worth selling is being disposed of at ridiculously and ruinously low prices to procure the necessaries of life, and the continued use of dry bread by these unfortunates as a daily diet has produced much sickness and suffering from gastric complications; but this needs confirmation.

The supply of corn, notwithstanding the exportation of all cereals has been prohibited, is gradually being exhausted, while the flocks are dying through lack of pasturage and water.

The suffering from continued drought is not confined to the narrow limits of Cilicia, but extends far north into Karamania and other parts of Asia Minor; Eastern Persia is also suffering from this vicissitude, and notably the district of Khorassa is greatly afflicted from a dearth of provisions, and a general famine is apprehended; but these provinces are beyond my jurisdiction, and a description of the distress and destitution of their much-to-be-pitied inhabitants must be reserved for an abler pen than mine, and will doubtless be noticed by our accomplished representative in Persia.

Consul H. M. Jewett writes from Sivas, under date June 7, 1887:

The outlook regarding crops throughout Asia Minor is very unfavorable, if not alarming. No rain of any amount has fallen this season. Still worse, in the Euphrates district locusts have made their appearance. Wheat has more than doubled in price, and the price of bread has been raised threefold, which has a very serious meaning to the poor classes of the country. The Government has forbidden the export of grain from Sivas, Tokat, Amasia, and other districts. There is probably old wheat enough to tide over the present season without an actual famine, but not enough to avert hardship and distress to the poor. Owing to the want of railroads and other means of transportation individual districts are liable to suffer for want of grain when others comparatively near have an oversupply. The experience of the famine of 1880 appears to have been thrown away.

one at Nikolsk and the association called "Of Central Asia." These two important houses have assumed the task of establishing plantations of American cotton on Russian territory on a scale which would enable our national industry to entirely emancipate itself from the Liverpool market.

The cotton industry is known to be the most considerable of the Empire. In 1885 it was estimated to have amounted to over 212,000,000 rubles, but progress has been neither constant nor regular. Thus in 1882 Russian cotton goods were produced to the amount of 208,000,000, and in 1884 to only 171,000,000; and this phenomenon cannot be explained merely by the effects of the economical crisis, which was felt equally by most of the other branches of our manufacturing industries. It comes from other causes inherent to the matter; in fact, whilst the woolen and linen manufactures obtain their materials in the country (which has enough of them for the foreign markets also), the cotton manufactures find themselves completely under the dependency of the plantations of the New World, or rather of the cotton market of Liverpool, the most important of Europe.

This market is still without serious rival, the importation from Egypt and Central Asia not yet being great. Therefore our manufacturers are obliged to submit to the frequently enormous variations in the price of cotton at Liverpool; and this endangers the steady development of their production. The only issue from this situation would be to have within the limits of the Empire a cotton of good quality and of sufficient quantity.

This want has long been felt by our commerce. Recently it was proved that cotton raised in Russia is of superior quality. The numerous trials made, not only in the Caucasus and the transcaspian region, but also in Bessarabia, the Crimea, and New Russia, leave no doubt that the cotton-plant of New Orleans grows as well with us as in the Southern States of the American Union. Money and the spirit of initiative have, however, been wanting to give the necessary start to the Russian cotton plantations. In order to meet the requirements of the national industry, it would have been necessary, according to the calculations of M. Koudrine, head of the second of these houses, to sow 500,000 déciatines of land in the transcaucasus, Turkestan, and the transcaspian country. What would contribute to the success of the enterprise is the excess of excellent workmen in those regions, who would willingly work for 20 or 25 kopeks a day. The working of a déciatine of cotton would nevertheless come to 60 rubles, which would necessitate an annual expenditure of about 30,000,000 of rubles for the cost of cultivation. A mean crop of about 15 poods (the pood equals 36 pounds 10 ounces) of cotton could, however, be expended per déciatine; the price per pood being 6 rubles at the place of production; the 7,500,000 gathered per annum would consequently furnish a revenue of 45,000,000 rubles, that is, a plus value of 10,000,000. The prospect of so considerable a profit has resulted in waking up our capitalists, who this year have seriously put themselves to the work.

Already, since 1885, several agents have been sent to America to study cotton-planting on the spot, and to verify at the same time the statistics published by the American trade. This latter received with visible irritation the reports relating to the eventual opening of Russian cotton-growing, and maintained by its organs the thesis that good cotton could only succeed in tropical or semi-tropical countries. In answer to these assertions the experiment of cotton-planting was made in the transcaucasus. It was found that the Russian plantations went ahead of the American plantations. In Florida, Texas, and Arkansas—that is, in three Southern States—sowing takes place between the 15th of April and the 15th of May (new style); the harvest begins at the end of September. In the transcaucasus sowing was finished earlier and the harvest also was accomplished at the time when it had barely begun in Texas and Florida. As to the quality of our product, our cotton showed inferiority in no respect to its American similar, while the cost of cultivation in many localities did not exceed 40 rubles, which, it is seen, is below the estimates of M. Koudrine. The phenomena is in no way surprising, for it is recognized that nowhere are plants cultivated so advantageously, whether from the point of view of quality and quantity or that of cheapness of production, as at the northern limits of

This general law for all plants is applicable as well to

Koudrine has agencies at Merv, Askhabad, and Meshed. It has also just sent the first caravan with Russian merchandise to Thibet.

We publish the above information, which we would be happy to see confirmed on all points, without disguising from ourselves that experience alone can bring the necessary elements to confirm or weaken the bright hopes entertained by our cotemporary.

Bremen as a cotton market.—Consul Loening writes, under date July 14, 1887:

Bremen is the future cotton market of the continent. If our merchants would make the exertion, I am sure that an immense cotton trade with Bremen would be the result. The cotton merchants here complain much about the mode of shipment on through bills of lading from inland towns in the United States. In many instances drafts are paid on through bills of lading, and the buyers here sit and wait for their cotton, not knowing by what ship or steamer the cotton is shipped. The railroad companies merely undertake to ship the cotton by a vessel leaving such and such a port for Bremen. Sometimes the merchants are kept waiting for their cotton three months or more, suffering loss of interest on draft, and loss by weight and damage to the cotton so long in transit, and often unprotected in hands of railroad companies.

Many cotton buyers here have repeatedly expressed themselves in my presence as determined not to buy any more cotton on railroad through bills, but rather pay from $\frac{1}{16}$ to $\frac{1}{32}$ cent more and be sure of when and what they can expect to receive; besides the avenue to fraud in the through-bill-of-lading system is great. Cotton importers here complain that on our side we are too careless, not strict enough in classing and transactions, while I believe that here they are too "picayunish," stick too much to trifles, and annoy and disgust our merchants by sending a reclamation for, say, $1 on a lot of 100 bales.

The arbitrations, however, are, I believe, quite fair. It is a shame how cotton is handled at Bremerhaven (port of Bremen). In discharging the cotton it is dumped right in the mud, as there is not enough accommodation on the docks, not enough sheds. I have known cotton to lay a week in the mud and rain until somebody claimed it.

Currant crop of Zante.—Consular Agent Crowe writes, under date June 30, 1887:

In a special report I estimated the total currant crop of Greece at about 126,600 tons, which now proves to be about the total, as against 113,287 tons in 1885, and 129,268 tons in 1884. Prices, as was anticipated, did fall considerably, soon after the new year, which enabled a good quantity of fruit to change hands, and as stocks on this side became lighter, prices again advanced, and a livelier demand ensuing, the whole of the remaining stocks may be considered as bought up at about 18*s.* 6*d.* to 19*s.* per 112 pounds, English, free on board in barrels, for the currant-eating markets, or 46 to 47 per francs 100 kilograms, in bags for the French markets for distillation.

The distribution has been as follows:

To—	Tons.	To—	Tons.
United Kingdom (about)	54,000	Trieste (for South Germany)	2,522
United States	11,750	Australia	277
Canada	1,658	Southern Russia	200
France	43,000		
Belgium, Holland, North Germany	12,656	Total	126,063

Of the quantity shipped to the United Kingdom, a portion (probably 7,000 or 8,000 tons) was forwarded to other countries, including the United States; but the direct shipments from Greece to the United States were 11,750 tons, as compared with

Duties have been increased on all imports, and they are payable in gold, or 15 per cent. more if in paper. A loan having been concluded by the Hellenic Government, exchange has fallen about 12 per cent.

On currants grown on the mainland, an additional tax of 20 per cent. on the duty is to be levied on their exportation; and on the Ionian islands, 15 per cent. on the ad valorem duty on currants, wine, oil, and soap, when exported.

American trade with Persia.—Minister E. Spencer Pratt writes from Teheran, under date June 21, 1887:

I am constantly receiving letters from merchants and manufacturers in the United States asking to be recommended reliable parties here with whom they can enter into business relations.

This legation knows of none such that it can take the responsibility to so recommend, and, in this connection I personally and officially consider it my duty to state that I am earnestly requested by Persians in the highest positions, who sincerely desire to see the commercial relations between the two countries established on a sound basis, to advise that firms in the United States desiring to enter this market send over their own agent or agents to represent them, and that they, under no circumstances, choose as their representatives foreign or European adventurers on the spot, who, under the pretense of possessing peculiar facilities for doing business and especially for obtaining contracts from the Government, shall, for the purpose of promoting private schemes of their own, seek to obtain the use of the names of the said firms as a sort of guarantee of responsibility. That a lucrative trade can be established between the United States and Persia I am confident, but I am equally confident that to make it successful it must be originated and controlled by our own people at both ends of the line.

Peanuts at Antwerp.—Consul John H. Steuart writes from Antwerp, under date July 14, 1887:

Peanuts, or as they are known in French, *graine d'arrachides*, are imported into Antwerp from Coromandel, Bombay, La Plata, and the coast of Africa.

The Coromandel peanuts are brought from Madras or Pondicherry in sacks, already husked and cleaned. Generally they arrive in a more or less heated condition, and in consequence the oil extracted from them can only be used as machine oil, whilst the cake made from the residue serves only for manure.

The Bombay peanuts also come in sacks ready husked and cleaned. The first arrivals after the new crop are generally in excellent condition and produce an oil sweet and clear, that can be used as salad oil, and the cakes remaining are of sufficiently good quality to serve as food for cattle.

During the last few years, however, large quantities of Coromandel nuts have been sent by rail to Bombay and exported as Bombay nuts; the quality not being so good, the reputation of the latter has suffered thereby.

From La Plata some lots have been received and have given satisfaction, as the oil produced was sweet enough for salad oil, and was also used for the manufacture of artificial butter, and the cakes remaining were of excellent quality.

From the coast of Africa come the peanuts that give the best results. Only a small quantity of them is received here, the greater portion being imported into Marseilles and Nantes, in France, to be manufactured into salad oil to compete with the olive oil.

The nuts from Coromandel and Bombay arrive in sacks, already husked and cleaned, whilst those from La Plata or the coast of Africa come in the shell and have to be husked or cleaned by the manufacturers.

The peanuts from Coromandel, husked and peeled, yield about 36 per cent. of oil and 72 per cent. of oil cake, making a gain of 8 per cent. in the manufacture. Peanuts from Bombay, husked or cleaned, yield about 38 per cent. of oil and 70 per cent. of oil cake, showing also a gain of 8 per cent. Peanuts from La Plata, in the [illegible] oil cake and 20 per cent. residue matter. [illegible] 40 per cent. oil

Special machinery has to be used for the nuts of La Plata and the coast of Africa, so as to husk, peel, and clean them, and the factory can work only in this quality of goods, so as to prevent contact with anything that would interfere with the use of the oil for salad oil, or for the manufacture of artificial butter.

These goods are classed in the customs tariff as oil seeds and as free of duty.

The expense of handling here would be from 25 to 50 centimes (that is, 5 to 10 cents) per 100 kilograms (kilo = 220 pounds), depending upon the manner of sale, whether from the vessel or the dock, or whether from a warehouse. The commission is 1½ per cent. for large quantities.

American peanuts are not known on this market. Possibly they might be introduced, so as to become as popular here as they are at home; and the quality of oil and oil-cake extracted therefrom might rival, if not surpass, that of the African nuts.

The only way to ascertain this is to make a shipment and try the market. I can recommend Mr. P. Roels, of this city, as the agent who would be most useful to them, as he has been to me in giving the above information.

Notes on Ichang.—Consul Jones transmits from Chin Kiang a letter from Rev. U. C. Hart, an American missionary, in which occurs the following passage on the productions of Ichang:

Ichang was opened to foreign traffic ten years ago. This is at the head of steam navigation on the Yangotsz. From the ocean to Ichang is 1,040 geographical miles; from the latter place to Chungking is 360 miles. To ascend these waters to Chungking by native boat, the only conveyance to be had, requires from 20 to 40 days, much depending upon the season and weather. * * * There are some limestone ledges which contain coal of poor quality, which is being mined in ancient fashion. It is drawn out from the pits or seams upon little sleds 3 feet long and 1½ wide. A basket of the same dimensions is fastened to the sled, holding about 150 pounds of coal. A good deal of coal is mixed with dirt and water, and molded into bricks, which are exported. * * * The poppy plants occupy from November fully one-half of the arablel and along the river, and the best land, too—Richtofen says, one-third of the cultivated sloping ground. Wheat, barley, peas, beans, buckwheat, and rape seed occupy the other half. Rice is cultivated in level places, in the hollows, and on the hill tops where a supply of water can be had. The wheat and barley of Eastern Szchuan are superior for China. The products, major or minor, are numerous: maize and tobacco are the chief summer crops, and they grow most luxuriantly. I had never seen more vigorous growths of tobacco. Fruits are varied and plentiful, such as peaches, apricots, cherries, oranges, pumalos, inferior apples, and grapes. Shade trees are abundant—the banyan, cedars, pines, juniper, oak, maple, ash, and bamboo. I saw very few camphors. Trees are not grown to any extent for lumber or firewood in the district, owing to the large supply of coal for fuel and the cheapness of wood from other districts.

Jerked beef in Venezuela.—Consul Bird sends the following from the *Gaceta Oficial*, June 28, 1887:

UNITED STATES OF VENEZUELA, MINISTRY OF FINANCES,
DIRECTION OF CUSTOM HOUSES,
Caracas, June 25, 1887.

Resolved, The President of the Republic, with the vote of the Federal Council, and in use of the authority granted in article 10, law XXIII of the code of hacienda, referring to the tariff of imports, has thought proper to resolve that—

The importation of jerked beef* from abroad is prohibited.

Communicate and publish it.

By the Federal Executive.

FULGENCIO M. CARIAS.

Exposition at Barcelona in 1888.—Consul Scheuch writes:

The muncipality of Barcelona has undertaken to hold an exposition in 1888. The Government has made a subvention of 2,000,000 pesetas (a peseta = 19 cents) for the

Produce of the Rio Tinto mines.—Consul Ingraham communicates the following:

Pyrites.—The quantities extracted from the mines were as follows:

Years.	For shipment.	For local treatment.	Total.	Average copper contents.
	Tons.	*Tons.*	*Tons.*	*Per cent.*
1882	259,924	688,307	948,231	2.805
1883	313,291	786,682	1,099,973	2.956
1884	312,028	1,057,890	1,369,918	3.234
1885	406,772	944,694	1,351,466	3.102
1886	336,548	1,041,833	1,378,381	3.046

The average quality of the ore extracted continues to be satisfactory.

The amount of the company's pyrites actually consumed in Great Britain, Germany, France, and the United States was:

	Tons.
1882	272,826
1883	288,104
1884	314,751
1885	354,501
1886	347,024

The continued depression in the chemical trade still keeps the deliveries somewhat short of the estimate warranted by our present contracts.

Copper.—The copper produced during the year was equal to 15,863 tons of 21 cwt., and there were brought to market and realized 16.524 tons, partly of 20 cwt. and partly of 21 cwt.

The following are the quantities of copper produced in various forms at the mines yearly, expressed in the common denomination of metallic copper, viz:

Year.	Quantity.	Year.	Quantity.
	*Tons.**		*Tons.**
1876	946	1882	9,740
1877	2,495	1883	12,295
1878	4,184	1884	12,668
1879	7,179	1885	14,593
1880	8,559	1886	15,863
1881	9,466		

*21 cwt. net.

The copper contained in the pyrites delivered is not included in the above.

The price of Chili bars, which serves as the basis of the company's sales, averaged £3 11*s.* 5*d.* per ton less in 1886 than in 1885.

Crops of Sumatra Tobacco.—The following is from the *Bulletin Consulaire Français* for May and June, 1887, p. 430:

Years.	Bales.	Average price.	Years.	Bales.	Average price.
1870	3,114	$1 20	1878	48,141	$1 26
	3,922	1 37	1879	57,470	1 18
				65,065	1 18
				82,354	1 15¼

named, which has passed both branches of Congress and will un doubtedly be made a law by the President's signature:

ARTICLE 1. From the promulgation of this law, freedom from all federal, local, and municipal taxes, with the exception of the stamp tax, will be granted to all coal mines, petroleum springs, iron and quicksilver mines, as well as their products; to native malleable and cast iron in bars, rods, pigs, plates, and rails, and to native quicksilver, the liquid product of the minerals from which it is extracted.

ART. 2. The interior State duties, portage tax, &c., however denominated, shall not be levied on the movement, within the Republic, of gold or silver ore, bullion or coin, or on the circulation of the other metals and mineral products.

ART. 3. Quicksilver, whatever may be its origin, shall be exempt from any tax denominated.

ART. 4. Beyond the coinage tax the mines not excepted in article 1st and their products shall be subjected to but one tax, which shall be placed on the value of the metal or mineral product without allowance for expenses of production, but which, however, shall never exceed 2 per cent. of that value.

ART. 5. The tax specified in the previous article shall be assessed for the State in which the mine is located, or for the Federal Government when located in the federal district, and the amount of such tax shall therefore be fixed annually by the several State legislatures within the limits prescribed, and in cases pertaining to it by the national Congress, attention being given to the condition of the treasury and consideration being had for the protection which should be given to the mining industry.

ART. 6. Reduction works and metallurgical assay offices of every class, when in operation, shall pay to the State in which they are located, or to the federal district, a single tax, which shall not exceed six per thousand on the value of the estate and machinery.

ART. 7. The federation shall receive, as provided, 25 per cent. of the taxes levied by the several States, in accordance with the previous regulations.

ART. 8. Any other tax, except the stamp tax however denominated, on the extract, product, or profit of mine or reduction, on the product or profit of mineral establishments, on the capital invested in mines or mills, shares of stock and bonds, or on any kind of metallurgical offices, on transfer deeds to mines and mills and all stock representing the same, is positively forbidden by this law.

ART. 9. The States are forbidden to charge any tax for the denouncing, possession, or other formalities or operations necessary for the acquisition of mining properties or reduction works, or the organization of stock companies, or the transfer or issue of bonds and stock.

ART. 10. The executive is authorized to make contracts by granting special franchises and concessions, without prejudice to the rights of third parties, to companies who guarantee the investment of capital in mining, the extent of territory granted being considered in connection with the amount of capital to be invested, the nature of the mineral, and the conditions of the locality, in conformity with the following rules:

(A) The duration of the franchises and special concessions shall in no case exceed ten years.

(B) The minimum capital to be invested in prospecting and operating shall be $200,000 within five years.

(C) This capital shall be exempt, during ten years, from all federal tax except the stamp tax.

(D) The maximum number of properties which may be granted in ordinary cases shall be twenty, together or separate, the number being determined by the rules and regulations of the respective department of the ministry of public works in proportion to the capital, quality and quantity of mineral, and conditions of the locality, the owners always enjoying the greatest liberty to work on one or all of the properties with not less than twenty operatives.

(E) Only in case of discovery or re-establishment of mining districts can the number of claims so conveyed exceed, according to circumstances, the number indicated by one-half.

(F) The extent of such properties shall be subject to the requirements of the mining code, except in the case of gold placers, in which case the property shall be considered of irregular yield.

(I) This extraordinary protection can be conceded only once, whatever causes may be alleged, but others can be granted in accordance with the requirements of the mining code now in force, but no protection shall be regarded as a motive for extending the privilege longer than the ten years mentioned in the respective contract.

(J) The ministry of public works will authorize owners of claims, if it may be considered proper to do so, to divide and transfer with previous consent of the ministry the concessions contained in the contracts, always provided that the new companies. mining, shall assume their proportion of the obligations.

(K) All these companies shall enjoy the rights and be subject to the obligations which the mining code prescribes, on the expiration of the time specified in their contracts.

ART. 11. For the term of ten years the industries of pisciculture, grape culture, and silk-worm culture shall be exempt from all federal tax except the stamp tax. For the enjoyment of this exemption said industries shall be subject to the conditions fixed by the respective regulations.

ART. 12. The executive is authorized to contract with the railroads for a reduction of the freight rates on native products destined for exportation, on the following bases:

(A) The executive shall fix in his annual estimate the amount necessary to cover the sum charged by the railroads for services rendered under this head.

(B) The ministries of finance and public works shall dictate two months before the expiration of the fiscal term the necessary measures whereby exporters may avail themselves of the advantages specified.

(C) The exports which shall be entitled to a freight reduction shall be divided into four classes, among which, according to the importance they acquire and the protection they need, the executive shall locate them every year, publishing with due notice the respective classification.

The provisions of this law shall take effect in the different States July 1.

American goods in Gera.—Consular Agent Neuer writes:

The retrogression which the trade in American goods has experienced in this region of late years, while almost all articles exported from this district to the United States show a steady increase, induces me to commend some suggestions to the attention of our traders and manufacturers.

Formerly the canned goods prepared in the United States enjoyed a high reputation throughout this district, so that they were greatly in demand. Their excellent quality, in addition to a comparatively low price, rendered them a favorite article. From reliable sources I can state, however, that the high standard of the respective goods, previously securing an extensive demand and sale, has not been maintained. Aside from the fact that the packing frequently lacked the necessary care, the goods were in many instances of a poor quality. As a consequence, their consumption has, to the disadvantage of our traders, materially decreased, and is at the present time a very limited one. To regain a market which has been lost is one of the most difficult commercial problems. Therefore our merchants ought to exercise, above all, the greatest care and conscientiousness concerning the character of their shipments. The trade with our cheap and excellent products is capable of great extension when conducted in the proper way.

As to our manufactures, many Americans are inclined to suppose that because they have an article of undoubted merit, and generally acknowledged at home, it is an easy matter to sell it in foreign markets, and needed only the transmission of circulars and price lists to attain this object. Comparing, however, the tastes and wants of Americans with that of other countries, this supposition is a very erroneous one. A mechanic in the United States will promptly and unhesitatingly discard a tool he has in use for something better adapted to his requirements. To assume that a German mechanic is equally progressive is a grave mistake. To gain [illegible] it is indispensable to enter into a careful study of the [illegible] customers. Then it is nec-

with energy and perseverance our manufactures will find a ready sale, owing to their superior quality, and once introduced will be as difficult to supplant as were its predecessors.

An absolutely necessary requisite for an American agent in this country is a thorough knowledge of the German language. An understanding of a foreign language to carry on an ordinary conversation is not sufficient for the purpose of successfully introducing our merchandise. It is unquestionably due to the push and persistency of the merchants in this district that they have a firm footing in the United States for their manufactures, and I think if our merchants would apply the same systematic methods they would be equally successful in the promotion of their commercial relations.

Hawaiian Islands.—The following statement shows the domestic exports of the Hawaiian Islands for the first six months, 1887, compared with the first six months, 1886:

Articles.	1887.	1886.	Increase.	Decrease.
Sugar.....pounds..	152,168,623	160,636,998	.....	8,468,375
Molasses.....gallons..	36,516	35,480	1,036	.....
Paddy.....pounds..	400	.....	400	.....
Rice.....do....	6,040,500	3,178,050	2,862,450	.....
Coffee.....do....	3,700	4,026	.....	326
Bananas.....bunches..	30,312	22,442	7,870	.....
Taro flour.....pounds..	240	.....	240	.....
Goat-skins.....pieces..	7,471	7,654	.....	183
Hides.....do....	13,633	13,297	336	.....
Sheep-skins.....do....	3,471	5,135	.....	1,664
Wool.....pounds..	6,400	73,180	.....	66,780
Awa.....do....	5,636	865	4,771	.....
Betel leaves.....boxes..	612	164	448	.....
Tallow.....pounds..	.....	15,885	.....	15,885

Exports from Horgen.—Consul Rice sends the following statement, showing the value of declared exports shipped from the consular district of Horgen to the United States during the fiscal year ending June 30, 1887:

Articles.	1886.		1887.		Total.
	Third quarter.	Fourth quarter.	First quarter.	Second quarter.	
Articles of art (wood carvings, musical boxes, pictures, &c)	$843 99	$579 00	.....	.....	$1,422 99
Bolting cloth	8,984 54	4,599 00	$4,510 08	$7,504 62	25,598 24
Catholic devotional articles	46,573 37	24,364 78	28,859 40	23,132 93	122,930 48
Cheese	1,329 79	1,337 66	968 33	873 26	4,509 04
Cotton thread	179 30	215 78	225 53	....	620 61
Dye-stuff and medicinal stores	383 76	403 79	.....	.....	787 55
Machinery for weaving, knitting, &c	4,776 17	2 384 32	4,712 13	1,824 29	13,696 91
Silks, in pieces	317,554 11	196,016 14	198,313 38	120,339 58	832,223 21
Silk and cotton goods, in pieces	167,934 29	141,708 46	189,407 21	216,863 42	715,913 38
Straw goods	3,019 43	23,295 03	17,422 33	1,435 63	45,172 42
Wines and liquors	290 67	440 21	221 64	248 34	1,200 86
Whisk	....	540 40	453 55	.....	993 95
Total	551,869 42	395,884 57	445,093 58	372,222 07	1,765,069 64
Aggregate value fiscal years ending June 30—					
1882					
1883					2,176,424 29
1884					2,648,749 44
1885					2,599,467 42
1886					

June 30, 1887, and for the corresponding quarter of 1886; also the totals for the years ending on same date:

Articles.	Quarter ending—				Total for year ending June 30, 1887.	Total for year ending June 30, 1886.
	June 30, 1887.		June 30, 1886.			
	Marks.		*Marks.*			
Articles of art, oil paintings, &c	2,817 97	$670 67	8,114 40	$1,931 23	$5,419 53	$6,030 60
Buttons and buttonstuffs	3,760 70	895 05	.....	.....	3,332 31	10,944 46
Canvas for embroidery	4,429 51	1,054 22	1,534 85	365 29	2,428 92	1,472 08
Cotton goods (mainly cotton velvets)	124,494 64	29,629 72	72,480 54	17,250 37	220,481 41	29,831 72
Chemicals and dyes	22,729 12	5,409 53	23,912 09	5,691 08	16,230 62	25,350 10
Liquors and wines	30,670 75	7,299 64	2,302 10	547 90	23,528 82	20,228 35
Miscellaneous	12,172 18	2,896 98	11,969 14	2,848 65	11,114 49	9,344 91
Plush goods	1,807,677 24	430,227 18	1,298,093 26	308,946 19	1,126,152 86	664,784 32
Paper ware and labels	48,599,32	11,566 64	35,441 39	8,435 05	56,071 81	45,546 68
Raw silk	.....	.....	.....	.....	6,172 88	.....
Ribbons:						
Velvet	.....	.....	11,977 78	2,850 71	6,891 68	22,518 70
All silk	923 40	219 77	3,712 80	883 65	2,587 64	833 65
Half silk	.....	.....	.....	.....	219 77	.....
Cotton	2,381 15	566 71	.....	.....	566 71	.....
Silk goods	82,228 56	19,570 40	78,944 64	18,788 82	120,587 30	105,308 56
Silk and cotton-mixed goods	1,442,654 82	343,351 85	915,869 65	217,976 98	987,611 63	743,826 83
Steel and iron machinery, wire, &c	4,439 70	1,056 65	.....	.....	9,738 24	1,243 75
Velvet goods	2,839,812 53	675,875 38	2,150,333 02	511,779 26	2,903,210 32	2,175,301 07
Woolen goods	1,365 00	324 87	9,214 53	2,193 06	4,760 82	2,971 20
Total	6,431,156 59	1,530,615 26	4,623,900 19	1,100,488 24	5,507,108 76	3,865,586 98
Total during preceding year	4,623,900 19	1,100,488 24	.....	.....	3,865,586 98	.....
Increase	1,807,256 40	430,127 02	.....	.....	1,641 521 78	.....

Exports from Wallaceburg, Ontario.—Commercial Agent Worden sends the following statement, showing the value of declared exports from the consular district of Wallaceburg, Ontario, to the United States during the four quarters of the year ending June 30, 1887:

Articles.	Quarter ending—				Total.
	September 30, 1886.	December 31, 1886.	March 31, 1887.	June 30, 1887.	
Apples	$61 00	$135 75	$416 65	.....	$613 40
Breeding animals	.....	107 50	82 50	$512 00	702 00
Beans	.....	66 00	.....	.....	66 00
Cord-wood	33,959 26	23,918 75	.....	16,895 75	74,773 76
Elm logs	28,701 50	14,513 00	.....	38,617 50	81,832 00
Eggs	.....	33 00	.....	570 00	603 00
Furs (raw)	.....	.....	.....	292 50	292 50
Hay (baled)	.....	.....	.....	242 82	242 82
Horses	.....	.....	.....	337 50	337 50
Heading	236 25	514 50	.....	648 02	1,162 52
Hoops	2,342 50	46 80	.....	818 40	1,101 45
Live stock	9,922 37	2,821 50	1,097 00	.....	6,261 00
Lumber (hard wood)	722 50	4,156 90	1,465 84	6,400 58	21,945 69
Logs (oak, maple, and hickory)	271 00	366 70	.....	.....	1,089 20
Poultry and live fowl	145 00	539 00	.....	319 00	1,129 00
		128 00	.....	516 75	789 75
			.....	.....	628 30
				29,674 96	62,399 62

REPORTS

FROM THE

CONSULS OF THE UNITED STATES.

No. 84.—SEPTEMBER, 1887.

CONSULAR AND DIPLOMATIC OFFICERS REPORTING.

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WEIGHTS, MEASURES, AND CURRENCY MENTIONED IN THESE REPORTS.

Name.	Country.	United States equivalent.
Catty	Corea	1⅓ lbs.
Haikwan tael	China	$1.22
Kantar	Turkey	124.652 lbs.
Kilometer		.6213 miles.
Okes	Turkey	2.833 lbs.
Para	Egypt	$.0011
Piaster	Egypt	40 paras.
Picul	China	133⅓ lbs.
Quintal	Venezuela	101.43 lbs.
Rupee	China	$0.462
Tael	China	$1.0675
Yen	Japan	$.997 gold. .784 silver.

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CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

No. 84.--September, 1887.

[In continuation of Consular Reports No. 82, August, 1887.]

VENEZUELA.

Report of Consul Plumacher.

As in all other parts of this Republic, much depression has existed during the past twelve months, although Zulia, on account of her favorable position, and perhaps also the superior energies of her citizens, has suffered less than any other section. The ravages of the locusts, the prolonged droughts in many important agricultural districts, and the low prices of native produce in foreign markets have combined to make the past year anything but satisfactory.

COFFEE.

The amount of coffee exported in 1886 exceeded that of any year since my arrival at this port in 1878, there having been shipped to the United States alone 35,581,770 pounds, having a declared value at Maracaibo of $3,466,009.08 United States gold.

As the value of shipments to the United States of all classes of produce amounted for the year to only $3,736,675.58 the importance of the coffee trade is apparent. It may be said indeed to be the life of business, and all industries and schemes of progress depend more or less upon the price of this staple abroad.

Until within the past three months the demand in American and European markets was sluggish and

the large exporting houses are obliged to make heavy advances in the interior, which may or may not result satisfactorily, according to the uprightness of their debtors, the condition of the crops, and the state of the ever-fluctuating foreign market. The absence of satisfactory telegraphic communication is also a drawback to successful speculation.

At the extreme east of Venezuela there is a line running from a point opposite Trinidad to Caracas, but no attempt has been made to lay a cable from that island to the Venezuelan coast.

Steamers from Trinidad make frequent trips to La Guayra, bringing telegrams a day or two old, which are dispatched by telegraph to Maracaibo. This line, however, although new, is so badly managed that dispatches are frequently from ten to fifteen days on the road between the two cities, a distance of about 300 miles.

Such telegraphic communication is practically without value, and since its establishment has done nothing to benefit the mercantile interests of this section.

CACAO.

The exportation of cacao barely holds its own as compared with that of former years, a fact to be much deplored, as in quality and yield the cacao of the district Perija, a few leagues from Maracaibo, is superior to that produced in any other country of South America.

The shipments for the past year amounted to 126,414 pounds, of a declared value of $27,184.48.

With the opening of the projected railway from this city to Perija these figures will, in a few years, be increased tenfold, as want of facile communication is the only obstacle to the development of that fertile, almost virgin, region.

HIDES AND SKINS.

In hides and skins there is but little change. The United States received of the former 657,799 pounds, and of the latter 173,760 pounds, of declared values respectively of $99,240.89 and $41,762.92.

It is worthy of note that the goat-skins from the district of Coro command in New York nearly 10 cents per pound more than those imported from any other locality.

COPAIBA AND OTHER GUMS.

The forests of this section abound in valuable medicinal herbs and balsams, and, although the exportation is as yet insignificant, their collection will in the future be an important industry. Copaiba alone should yield a large revenue, but the same obstacles to the development of the cacao region militate against any interior enterprises on a large scale. The two great drawbacks are the scantiness of the population and the want of good transit communications. Should improved means of traffic and travel be introduced the former evil would soon remedy

During the past year the United States received from Maracaibo fustic, cedar, and box-wood of the respective values of $37,734.19, $8,484.85, and $8,878.85.

ORCHIDS AND OTHER PLANTS.

The collection of orchids and other plants, which command fancy prices abroad, is beginning to be a business in this section, and during the last six months a declared value of $8,659.81 was shipped to the United States, in addition to various lots sent to England. As yet it is impossible to say how far this industry may be extended, as the flora of our forests has never been thoroughly investigated; but it is believed that many rare varieties may be found in quantities sufficient to repay careful search.

THE STATE OF ZULIA.

In addition to the returns prescribed by the Department, I beg to inclose certain statistics respecting the section Zulia, which merits special notice, on account of its exceptionally favorable position and its increasing commercial importance.

As a home for immigrants, should the time ever come when the Government of this country recognizes the absolute necessity of attracting foreign labor, and shall be disposed to comply with its manifest duties towards the immigrants, as regards assistance and protection, then this section will be one of the most promising fields for successful colonization. Immense tracts of land lie idle, and the results given by the cultivated areas are surprisingly favorable when the still imperfect agricultural methods and implements are considered.

Much could be written upon the advantages offered by the shores of Lake Maracaibo, and these advantages will one day be utilized to the great profit of all concerned in the development of the natural wealth with which Providence has favored this section.

It is true that there exists certain obstacles to this development which, however, can and will be ultimately removed.

The lake itself is navigable for the largest classes of sea-going vessels in its entire extension, its length being about 120 miles. The bars at its mouth, however, practically close this magnificent sheet of water to the commerce of the world, and vessels of more than 11 feet draught are unable to reach the city of Maracaibo.

For many years the subject of the removal or deepening of the bars has been discussed, but it is only recently that the matter has been considered seriously, application having been made to the National Government for permission to make the preliminary surveys, with a view of determining the feasibility of the project. Should this be carried into execution, the effect upon Maracaibo and the surrounding country will be magical.

There is yet another scheme for giving freer outlet to the productions of this section, but which is attended with multitudinous drawbacks. It is proposed to run a railway from this city to a point on the gulf outside the bar, and thus obviate the necessity of entering the lake. This

Upon other drawbacks to the successful and speedy development of this section I will also touch but lightly, as it rests with the National Government to remove them at pleasure.

I refer more particularly to the vexatious and complicated customs laws and to the no less complicated import tariff, to understand which thoroughly and without liability to error, which, however innocent, may entail serious consequences, needs long practice and study. It is believed that a complete revision of customs matters is in contemplation, and such a measure would be heartily applauded by every one interested in commercial affairs in Venezuela.

Another drag upon progress has been the granting of monopolies of certain industries, such as the steam carrying trade of the lake and the extraction of various native products. The evil effects of this policy have, however, become so apparent that its continuation is already almost an impossibility.

Of the 23,000 square miles comprised in the section Zulia, about 6,000 are occupied by the lake, leaving nearly 17,000 square miles of habitable territory. The last official census of 1881 gave a population of 73,000 souls, or $4\frac{3}{10}$ to the square mile, but as the city of Maracaibo alone contains nearly 40,000 inhabitants the remainder of the section cannot be credited with an average of more than 2 persons to the square mile.

The local government and people are disposed to do all in their power to develop and utilize the latent wealth of their territory, but the unfavorable financial condition of the country during the past few years has prevented any serious progress.

To the southwest of Maracaibo, and reaching to the Colombian frontier, extends the district of Perija, which must become in the future exceptionally prosperous and important. A large extent of this district is covered with the most valuable timber, and the supply of dyewoods, mahogany, lignum-vitæ, box-wood, &c., is sufficient to fill heavy demands for many years to come. These forests also abound in copaiba, sarsaparilla, and other medicinal herbs and gums which yield a large profit.

In the open country agriculture can be brought to a high state of perfection, and the land is particularly adapted to the cultivation of cacao, which is one of the most lucrative industries. The district also contains unsurpassed grazing lands, with fine natural grasses, and the breeding of cattle is attended with great success.

Mines of excellent coal are known to exist, while in the range of mountains on the western frontier encouraging traces of the precious metals have been discovered. For want of easy communication with the shores of the lake this rich district has languished until now in a state of absolute torpor, although in 1885 the local government ordered surveys to be made with a view of building a railway to its center. The establishment of this line would inaugurate a new era in the industrial history of Maracaibo.

[illegible] scanty population of Perija would rapidly increase, ex- [illegible] local developments would sur-

and the rivalry, though peaceful, is none the less ardent. The time has long passed when South America would receive and be thankful for any class of manufactures—good, bad, or indifferent.

The very competition among foreign sellers to gain her patronage has made her coquettish and her tastes must be consulted. American manufacturers are slowly learning this lesson, but as yet are behind their European rivals.

I give a case in point, related to me by one of our most repectable importers: Some time ago he received in a consignment from the United States a lot of cotton goods, the pattern and quality of which were very suitable for local sale, but of a width not in favor among the people of this country. The importer wrote to his American correspondents, calling attention to the matter, and promising large orders in case of the desired change of width being made. The answer received was that no change could be made in the routine of the factory, and that if he wished that class of goods of a different width he had better look for it somewhere else.

It may be said that it is only caprice on the part of this people to insist upon apparent trivialities, but it is by the indulgence of these caprices and peculiarities that the Germans have gained such a firm grip upon the country.

Three-fourths of the foreign mercantile capital in Venezuela is German, and as a commercial body German citizens outnumber those of all other foreign nations combined, the secret being careful attention to the most trifling peculiarities of their customers and the presence of branch houses or agents in all localities of any commercial importance.

Another importer informed me that with much difficulty he finally induced his American correspondents to send goods in bales instead of in boxes, a small item apparently, but when it is remembered that duties are high, and are levied on the gross weight being charged upon the box in the same proportion as upon the silks it may contain, it is evident that in the course of a year's importation a considerable loss may be sustained by the heavy duties paid upon pine wood and nails.

Our exporters should also be careful that the quality of goods be uniform. It is not good policy, after having opened an extensive and profitable business, to allow shipments of inferior merchandise, and in this connection I would call special attention to the exportation of kerosene. This article is used throughout Venezuela, and is introduced exclusively from the United States, and formerly, before the trade, which has now become extensive, was so firmly established, the kerosene was of excellent quality. Now the complaint against it is universal. It gums the wick, gives but a dim light, and is too liable to explosion. Within the past year there has hardly been a newspaper in Venezuela which has not published accounts of accidents from this cause.

It is to be noted that this country possesses large petroleum deposits, and that refining is already done on a small scale with excellent results, judging from the samples in my possession.

By the expenditure of a moderate capital Venezuela could readily supply herself and a great part of Colombia with a good quality of kerosene, and should this industry be developed, it is certain that the United

It should also be considered that marked degeneration in the quality of a single one of our exports affects unfavorably our general commercial reputation.

Examination of this market has impressed me with the idea that our native wines and brandies could be successfully introduced. The quality of these articles now imported from France is execrable and injurious to health. The clarets are heavily charged with logwood, and the brandy, I fancy, contains none of the juice of the grape, and that sold here under the names of well-known manufacturers, with labels and corks marked in due form to attest its excellence, is a drugged, and, for this climate especially, a most pernicious mixture.

I believe that our California products could be introduced at least as cheaply as the foreign abominations with which the market is flooded, and once known their quality would insure a continuous demand.

There should also be more consumption of our preserved fruits, as their superiority is acknowledged.

The French and Italians send to Venezuela large shipments of these goods put up in fancy glass bottles and jars, with artistic labels which attract the eye. Should our manufacturers in that line consult a little more the ornamental, preserving at the same time a high standard of excellence, there might be a much increased demand for their goods.

Finally, I must return to an old and repeated recommendation, and although preaching on the same text may become tiresome, yet I must again call attention to the importance of personal representation of our merchants and manufacturers. One bright agent will do more in a week than can be accomplished by months of correspondence.

Every mail brings numbers of letters requesting the assistance of the consulate in establishing business relations. Many of the writers inclose circulars, all wish to sell goods, and some desire consignments of produce. Occasionally satisfactory results have been thus obtained, but the houses here are for the most part conservative in their ideas, and it is not often that they will be persuaded to step out of their beaten track by means of correspondence.

It is different, however, when they are approached personally, and even in the times of greatest business stagnation no capable commercial traveler has ever left Maracaibo without having reaped some benefit from his visit. The misfortune is that these visits are of very rare occurrence, so much so as to make the presence of an American agent a matter of general remark.

Referring to the return of exports from Maracaibo to the United States for the year 1886, it will be noticed that out of a total value of nearly four millions of dollars, but one item is dutiable, and that one very insignificant in quantity.

The United States, therefore, allowed this large amount of Venezuelan produce to enter free, except a small quantity of wool of the declared value of $708.96.

There is, however, perhaps not a single article of American produc- [illegible] subject to heavy import duties in this [illegible] which could

Venezuela, perhaps, would not be inclined to favor absolute reciprocity, but some fairer and more satisfactory arrangement than the present might be agreed to, especially as the United States deserve more commercial consideration than any one of the great trading nations.

In Europe import duties are levied upon coffee, cacao, and other important products of this country, while, as far as the United States are concerned, Venezuela in her export business has the advantage of almost absolute free trade and in her importation of a most exorbitant tariff.

Average yearly number of births in section Zulia.

District.	Legitimate.		Illegitimate.		Total.
	Males.	Females.	Males.	Females.	
Maracaibo	408	380	449	461	1,698
Miranda	62	55	76	77	270
Urdaneta	122	103	33	42	300
Colon	50	47	119	110	326
Guzman Blanco	56	59	86	70	271
Sucre	14	16	99	119	248
Bolivar	53	50	80	79	262
Total	765	710	942	958	3,375

Taking the census of 1881 as a basis, the birth-rate would be about 4 per cent. of the population.

It must not be supposed that the large proportion of illegitimate births implies general immorality, as domestic faithfulness is the rule and infidelity the exception. Although among certain classes the marriage ceremony is frequently dispensed with, yet couples living in this manner have quite as scrupulous ideas respecting their mutual obligations as could be desired in the best-organized society.

Average annual number of deaths in section Zulia.

District.	Adults.	Children.	Total.
Maracaibo	451	389	840
Maranda	48	40	88
Bolivar	54	48	102
Urdaneta	41	43	84
Sucre	63	99	162
Colon	78	84	162
Guzman Blanco	45	26	71
Total	780	729	1,509

The above figures would give a death-rate for the entire sectioon of about 2 per cent. of the population.

Articles supplied by Maracaibo to other sections of Venezuela during a period of one year.

Articles.	Weight.	Value at Maracaibo.	Articles.	Weight.	Value at Maracaibo.
	Pounds.			*Pounds.*	
Bags and bagging	14,335	$2,552 00	Rum	224,270	$9,856 40
Baskets, brooms, &c	10,590	1,889 20	Straw hats	11,365	6,806 15
Coffee	11,077	611 00	Sole leather	22,590	3,983 00
Cocoa	391,675	18,439 00	Starch	140,642	7,164 20
Cocoanuts	8,925	84 80	Samples and miscellaneous	441,027	38,244 00
Cocoanut oil	92,692	6,476 20	Sarsaparilla	575	377 60
Charcoal	45,062	162 50	Sugar	77,170	1,657 40
Cedar and other woods	1,249,832	14,110 40	Skins	4,568	1,892 40
Copaiba	2,945	570 80	Tallow	10,005	740 00
Corn	9,616,372	141,886 00	Trunks	228	20 00
Curare	1,012	610 00	Tobacco in leaf, manufactured	48,862	4,947 60
Feathers	1,455	130 80	Various domestic manufactures	3,502	138 60
Hides	102,297	11,737 00	Wool	250	21 10
Mangrove bark	715,205	1,752 40			
Mats	932	28 10	Total	13,410,227	279,415 70
Molasses	17,290	386 00			
Minor products, fruits, vegetables, &c	118,357	612 80			
Quinia bark	25,030	528 25			

Maracaibo and the section Zulia generally receive but few articles from other parts of the Republic. This region is not only self-sustaining as regards native products and manufactures, but at times, when distress and almost famine were prevalent throughout a great part of Venezuela, Maracaibo was able, after attending to the exigencies of her own population, to send cargoes of grain, &c., to the most distant points of the country.

Statistics of population of the section Zulia according to the census of 1881.

District.	Number of houses.	Inhabitants.		
		Males.	Females.	Total.
Maracaibo	5,758	18,471	21,548	40,019
Guzman Blanco	794	2,501	2,153	4,654
Colon	845	3,561	2,729	6,390
Sucre	1,089	2,929	2,482	5,411
Urdaneta	834	2,521	3,223	5,744
Bolivar	1,032	2,630	3,146	5,776
Miranda	945	2,434	2,831	5,265
Total	11,297	35,047	38,212	73,259

As more than five years have elapsed since the last census the foregoing figures cannot now be considered as entirely accurate. The present population of the section may be estimated at 90,000 souls.

Foreigners resident in the section Zulia.

	17
Citizens of the United States	246
	48
	71

Public schools in the section Zulia.

Colleges sustained by the National Government	1
Students	500
Schools sustained by the National Government:	
Males	36
Females	17
Students	2,933
Schools sustained by the government of the section:	
Males	12
Females	3
Students	490
Schools sustained by the municipality of Maracaibo:	
Males	7
Females	9
Students	1,616
Total number of establishments of public instruction	85
Total number of students	5,539

In addition to the above there are a number of private schools, both elementary and of a higher class of instruction. Various of these receive assistance from the local government, which also sustains from the funds of the section a class in music and drawing. Night schools for persons of more mature age, whose occupations keep them employed by day, are generously provided for by the sectional authorities. Respecting instruction, the record of Zulia is far more brilliant than that of any other part of Venezuela.

Stock breeding in the section Zulia, Venezuela.

District.	Cows.	Bullocks.	Bulls.	Horses.	Mules.
Maracaibo	10,986	2,595	451	620	204
Guzman Blanco	8,416	1,971	2,696	330	156
Miranda	6,355	3,400	1,086	290	110
Urdaneta	6,000	1,000	2,000	140	100
Sucre	294	65	32	18	2
Bolivar	6,800	700	1,300	154	11
Colon	300	50	60	89	61
Total	39,151	9,781	7,625	1,641	644

District.	Asses.	Hogs.	Sheep.	Goats.	Cheese, marketed.
					Pounds.
Maracaibo	1,866	3,150	7,629	101,428	1,013,325
Guzman Blanco	786	4,187	2,941	5,800	1,007,800
Miranda	500	3,000	500	25,500	492,000
Urdaneta	100	3,000	5,000	19,295	615,000
Sucre	13	1,500	50	50	21,500
Bolivar	200	2,000	300	5,000	66,500
Colon	705	2,684	.....	1,500	90,000
Total	4,170	19,521	16,420	158,573	3,904,625

Value of sheep and goats from $1 to $2.50 each; cows and bulls from $20 to $40 each. Wages paid to stockmen about $4 per month with board, or from 35 to 40 cents per day without board.

State of agriculture in the three principal agricultural districts of Zulia.

Description.		Sucre.	Colon.	Guzman Blanco.	Total.
Squares of land in cultivation:					
Sugar-cane		566	932	83	1, 581
Cocoa		92	724	480	1, 296
Corn		4, 100	3, 468	36	7, 604
Yuca		431	2, 196	189	2, 816
Plantains		2, 809	2, 645	87	5, 541
Sugar	pounds	4, 289, 610	4, 320, 800	423, 300	9, 033, 710
Molasses	gallons	90, 560	134, 080	13, 280	237, 920
Corn	pounds	10, 656, 000	9, 814, 560	172, 800	20, 643, 360
Cocoa	do	161, 460	984, 630	1, 433, 360	2, 579, 450
Rice	do	46, 000	203, 000	----------	249, 000
Casabe	do	4, 630, 000	8, 500, 000	2, 299, 000	15, 429, 000
Starch	do	1, 460, 000	2, 900, 150	596, 350	4, 956, 500
Plantains	bunches	3, 129, 600	5, 114, 240	168, 000	8, 411, 840

Wages of agricultural laborers from 40 to 60 cents per day, without board. A square of land comprises an extension of 300 feet square, or an area of 90,000 square feet. The three districts above mentioned are the only ones in the section where any agricultural statistics can be gathered. In the remaining districts but little produce is raised for market, the demand for local consumption equaling the supply.

Fisheries of Lake Maracaibo.

District.	Persons employed.	Fish sold annually.	Value.
Maracaibo	358	539, 244	$19, 785 25
Miranda	580	426, 265	12, 425 20
Bolivar	170	150, 000	3, 000 00
Colon	180	1, 820, 000	29, 120 60
Total	1, 288	2, 935, 509	64, 331 05

The foregoing data include only the fisheries of the lake. On the sea-coast of the section the business could be made very profitable. The lake abounds in the fish called the curbina, the sounds of which command an exceedingly high price and are used in the making of gelatine. Thousands of dollars' worth of the dried sounds are yearly shipped to New York, and the industry could be extended almost indefinitely.

Cases disposed of in the criminal court of the section Zulia during a period of one year.

Nature of crime.	Cases.	Nature of crime.	Cases.
[illegible]	43	Slander	2
[illegible]	5	Abduction	3
			63

Cases disposed of in the police courts of the city of Maracaibo during a period of one year.

Nature of offense.	Cases.
Drunkenness	139
Disorderly conduct	47
Breach of the peace	149
Minor offenses	280
Total	615

There is at present no section of Venezuela where the law is so generally respected and enforced as in Zulia, and although the foregoing tables may apparently indicate a greater amount of crime than in other places equal in population, yet this is not the case. In many parts of this Republic various offenses are committed with impunity and are passed over in silence which in this section are examined and recorded, the offender receiving due punishment. On paper many sections, no doubt, have a cleaner criminal record than Zulia, but in fact there is no more orderly and law-respecting people in the Republic of Venezuela.

Annual mortality in the city of Maracaibo.

Diseases.	Deaths.	Diseases.	Deaths.
Angina pectoris	27	Hemorrhage	3
Apoplexy	1	Hernia	1
Anæmia	4	Hepatitis	9
Aneurism	5	Lesions	21
Asphyxia	5	Lockjaw	34
Bronchitis	10	Old age	5
Cancer	15	Paralysis	3
Cholera infantum	29	Peritonitis	14
Cerebral affections	78	Pleurisy	4
Diarrhea	16	Phthisis	118
Dysentery	95	Suddenly	5
Dropsy	5	Other diseases	52
Enteritis	38		
Fevers	73	Total	670

Although Maracaibo has a somewhat evil reputation as an unhealthy locality, yet this to a great extent is undeserved.

It is true that foreigners upon their first arrival, unless accustomed to the tropics, must pass the "acclimatation fever," a type of yellow fever; but with proper precautions as to mode of life and constant vigilance in order to detect the primary symptoms of this disease there is no reason why the yellow fever of Maracaibo should prove fatal. It rarely assumes an epidemic form, and once recovered from its effects any foreigner can pass his life here in as good health as in any other part of the world.

It is necessary, of course, to adapt oneself to the climate and avoid excesses, as the constant heat, while productive of no special diseases, necessarily induces lassitude and diminishes the capacity for resistance.

The mortality resulting from other fevers, dysentery, phthisis, &c., is chiefly among the lower classes, whose aliment and general manner of living predispose them to be easy victims of any serious infirmity.

It is to be noted that of the 670 deaths

Exports from Maracaibo to all ports during the year ending December 31, 1886.

Articles.	Quarter ending Mar. 31.		Quarter ending June 30.	
	Weight.	Value.	Weight.	Value.
	Pounds.		*Pounds.*	
Coffee	8,998,550	$886,502 50	10,078,376	$992,880 55
Cacao	40,925	8,847 00	45,836	9,884 50
Copaiba	9,650	2,883 40	10,808	3,220 35
Dye-woods	3,692,500	17,614 60	4,135,600	19,712 23
Divi-divi	934,175	10,983 60	1,046,256	12,292 20
Fish sounds	8,285	3,785 10	9,268	4,256 04
Hides	164,449	24,810 08	186,184	27,776 21
Quina bark	7,275	1,813 70	8,148	2,016 10
Skins	43,645	10,440 60	48,888	11,703 87
Sugar	111,625	2,835 03	125,020	3,164 12
Straw hats	1,025	3,580 40	1,148	4,004 15
Specie	925	48,836 20	1,036	54,684 02
Wool			15,200	840 33
Woods for construction	1,473,450	9,136 75	1,650,264	10,192 13
Various	101,975	1,057 52	114,212	1,176 25
Totals	15,588,554	1,033,136 48	17,476,244	1,157,803 05

Articles.	Quarter ending Sept. 30.		Quarter ending Dec. 31.	
	Weight.	Value.	Weight.	Value.
	Pounds.		*Pounds.*	
Coffee	8,638,608	$851,040 36	8,278,666	$815,580 45
Cacao	39,288	8,472 30	37,651	8,119 63
Copaiba	9,264	2,760 28	8,878	2,645 18
Dye-woods	3,544,800	16,896 15	3,397,100	16,192 12
Divi-divi	896,808	10,536 19	859,441	10,097 36
Fish sounds	7,944	3,647 90	7,613	3,496 00
Hides	158,872	23,806 40	151,294	22,816 32
Living plants	11,400	3,115 75	22,800	6,230 25
Quina bark	6,984	1,728 20	6,693	1,656 03
Skins	41,904	10,008 50	40,158	9,614 30
Sugar	107,160	2,712 16	102,695	2,599 22
Straw hats	984	3,432 41	943	3,289 31
Specie	888	46,872 10	851	44,859 26
Woods for construction	1,414,512	8,736 21	1,355,574	8,372 16
Various	97,896	1,008 30	93,817	966 18
Totals	14,977,212	994,773 21	14,364,174	956,533 77

RECAPITULATION.

Articles.	Weight.	Value.
	Pounds.	
Coffee	35,194,200	$3,546,003 86
Cacao	163,700	35,323 43
Copaiba	38,600	11,509 21
Dye-woods	14,770,000	70,415 10
Divi-divi	3,736,680	43,209 35
Fish sounds	33,110	15,195 04
Hides	660,799	99,209 01
Living plants	34,200	9,346 00
Quina bark	29,100	7,214 03
Skins	174,595	41,767 27
Sugar	446,500	11,310 53
Straw hats	4,100	14,306 27
Specie		195,251 58

NAVIGATION.

The navigation returns for the year 1886 show a less number of arrivals at Maracaibo than in the preceding year, but the American flag has held its own with a total of fifty-one entrances.

Of European nations, Germany has the best record, while Great Britain, which at one time could claim three-fourths of the foreign tonnage arriving at this port, is represented by five small vessels, two of which are American owned, and trade exclusively with the United States.

Other foreign nations make but an insignificant showing, and this is especially noticeable in the case of Sweden and Norway, whose flags in former years were scarcely ever absent from this harbor.

It is a gratifying fact that almost the sum total of exports from this section to the United States, aggregating a value of nearly $4,000,000, is now carried exclusively in American bottoms, and the American steamship line from New York to different points on this coast is so firmly established that there is no apparent danger of foreign rivalry.

INTERIOR STEAM NAVIGATION.

The interior navigation of Lake Maracaibo and its rivers has been somewhat overdone, as there is not remunerative employment for all the vessels of that class engaged in the trade.

A blow was also given to this business by the granting of a monopoly to one party who, by the terms of his contract, was enabled to claim a certain tariff on goods carried by the lake steamers not belonging to his enterprise.

Of course he was bound on his part to give efficient steam service, which, however, was never done, as but one vessel of exceedingly unsatisfactory conditions was placed on the line, and she after a few trips was disabled and withdrawn entirely, being replaced by no other.

It would naturally be supposed that under these circumstances the owners of other steamers would have been at once relieved from the necessity of paying the royalty, but months elapsed and the contractor, without in any way complying with the terms of his concession, continued to draw a large revenue from the earnings of the energetic and progressive individuals who had established and fostered steam navigation in these waters.

REFUSAL BY GOVERNMENT TO RECEIVE FOREIGN COINS FOR DUES.

The dispatch of vessels with cargoes from foreign ports to Venezuela is at present hampered by the recent Government decree relative to the payment of import duties.

About two months ago a mint was established in Caracas, as previously all Venezuelan money was coined in Europe, but in quantities entirely inadequate to the necessities of trade.

There have always, therefore, been in circulation coins of almost every civilized nation, these being received at a value established by law and admitted by Government in payment of

The effect of this blow can be imagined when it is considered that four-fifths of the circulating medium in Venezuela was composed of silver coins of other countries.

This caused a temporary paralysis of all business and much annoyance, and among the poorer classes absolute distress, as no one was willing to receive any silver other than Venezuelan. The consternation was such that the butchers of this city, in which there is a consumption of from twenty to thirty bullocks daily, refused to slaughter, rather than to be obliged to accept foreign silver in payment, there being little Venezuelan coin in circulation.

The Bank of Maracaibo and the leading mercantile houses showed excellent judgment at this critical period by coming at once to an understanding and agreeing to receive, as usual, coins of all countries, fixing a fair value which would cover the cost of their exportation.

By this means a serious crisis was averted, but according to notices received from Caracas, that city is suffering greatly, as no other silver than Venezuelan is accepted by any one.

The decree referred to was evidently issued in order to clear the field for the exclusive reception of Venezuelan money, but was most unadvisedly premature.

As the mint is small, and the coinage progresses slowly, at least six months' notice should have been given to prepare the country for such a radical change. Another circumstance worthy of attention as bearing upon the interests of navigation is the recent reduction in the wages of the Maracaibo pilots, which has caused much discontent among that body of employés, several of the most capable having been obliged to withdraw after years of service and seek other employment, alleging the impossibility of supporting those dependent upon them with their reduced income.

The present pay is forty pesos per month, with no allowances whatever, or, in United States money, $30.77, which is but a small sum for the decent support of a family in Maracaibo.

The marine statistics of this port will always remain comparatively insignificant as long as measures are not taken to deepen the bar at the entrance to the lake.

Although the record of the past year shows a diminution of maritime activity, it is a matter of congratulation that the United States was fairly represented proportionately, and with the expected increased activity in the exportation to American ports of various classes of valuable woods, it is to be hoped that arrivals of vessels will become frequent.

E. H. PLUMACHER,
Consul.

UNITED STATES CONSULATE,
Maracaibo, January 5, 1887.

LA GUAYRA.

Report of Consul Bird.

This country was discovered by Columbus, July 31, 1498, on his third voyage to the New World The Spaniards, upon entering the lake of Maracaibo, and seeing the Indian villages built on piles over the water, gave it the name of Venezuela, or Little Venice. It was a Spanish province until the year 1821, when, after a long and bloody revolution, headed by General Simon Bolivar, its independence was acknowledged by the mother country.

PHYSICAL GEOGRAPHY.

The country is divided into three distinct zones, viz, the agricultural, the pastoral, and the forest.

The agricultural zone comprises the mountains and valleys between the coast of the Caribbean Sea and the interior range of the Parima Mountains, being about 70 miles wide. The surface presents every contrast of conformation, from high mountains to deep valleys, including high table-lands and hilly and undulating fields. The highlands and mountains are adapted to the cultivation of grain, potatoes, and coffee; the low lands and valleys are suited to the growing of sugar-cane, indigo, cocoa, and cotton. Within this area are comprehended all the sea-ports, the mass of the civilized population, and the chief agricultural interests.

The pastoral zone extends from the Parima Mountains to the Orinoco and Apure Rivers. It consists of extended plains interspersed with high table-lands, and watered by numerous streams that, in the rainy season, inundate the plains for many miles. Here the pasturage is luxuriant and plentiful, and cattle and other animals are reared with the least care and attention. The products of this section are cattle, horses, mules, hides, and deer-skins.

The forest zone, stretching from the Orinoco River to the limits of Brazil, is comparatively an undiscovered country, traversed by great rivers, and covered with limitless forests, abounding with all kinds of birds, beasts, and reptiles. Here the savage, secure as yet from the intrusions of civilization, finds a congenial home. The products of this region consist of india-rubber, copaiba, vanilla, and mahogany.

There are three systems of mountains, as follows:

The Andes, trending from Pamplona in Colombia toward the northeast, one branch of which extends to the peninsula of Goajira, and the other, entering the State of Lara, mingles with the Coast Range.

The Coast Range, parallel with the coast of the Caribbean Sea, and extending from the Gulf of Paria to Yaracuy in the State of Lara.

The Parima Mountains in the interior, traversing the country east and west and forming the southern limit of the agricultural zone.

The country is watered by 1,047 rivers, of which 436 are affluents of the Orinoco River, 230 empty into the sea, 124 flow into the Gulf of Paria, the lake of Maracaibo receives 120, and 93

miles. The islands pertaining to the country are few in number, the largest of which is Margarita.

AREA.

Venezuela contains 439,119 square miles of territory, an area larger than France, Germany, and the Netherlands combined, or about the size of the two States of Texas and California.

POLITICAL DIVISION AND POPULATION.

Prior to the year 1881 the political system of the country consisted of twenty States; but, under the reform of the constitution then decreed, twelve of these States were eliminated from the system. The old States, now called sections, though merged into new ones, retain their constitutions. The system, as now constituted, is as follows:

States, &c.	Sections.	Population.
Carabobo	Carabobo and Nirgua	159, 851
Guzman Blanco	Bolivar, Guzman Blanco, Guarico, and Nueva Esparta	494, 002
Lara	Barquesimeto and Yaracuy	233, 752
Los Andes	Trijillo, Guzman, and Tachira	293, 108
Zamora	Zamora, Portuguesa, and Cojedes	236, 371
Falcon	Falcon and Zulia	187, 051
Bolivar	Apure and part of the Territory of Guayana	54, 422
Bermudez	Barcelona, Cumana, and Maturin	257, 867
Federal District		69, 394
Six Territories		89. 427
Total		2, 075, 245

The population amounts to a little more than four to the square mile; and, in the aggregate, is less than one-half of the population of the State of New York.

SEASONS AND CLIMATE.

Summer and winter are the only clearly marked seasons of the year. The summer, or season of drought, begins in October, or as the sun enters the tropic of Capricorn, and ends with the month of March, during which time there is little rain, the temperature is agreeable, and the winds come from the north and northeast. The winter, or rainy season, begins in April, or as the sun enters the tropic of Cancer, and expires in October, in which period the rains are abundant, the temperature is high and the winds blow from the east to southeast. The general temperature in the warmest season may be stated as follows:

	° Fahr.
From sea level to 1,900 feet	86 to 77
From 1900 to 6,500 feet	77 to 60
From 6,500 to 8,000 feet	60 to 36

At 15,000 feet, perpetual snow.

The [illegible] in the various localities

Cities.	Average temperature.		Height above sea.		Population.
	° *Cent.*	° *Fahr.*	*Meters.*	*Feet.*	
Caracas	21. 8	71. 2	922	3, 025	55, 638
Puerto Cabello	26. 7	80. 06	2	6½	17, 000
La Guayra	27	80. 6	8	26	7, 428
La Victoria	23. 38	73. 90	456	1, 496	7, 000
Valencia	26	78. 8	556	1, 824	38, 000
Maracaibo	27	80. 6	9	30	24, 000
Merida	16. 14	61. 05	1, 619	5, 303	11, 000
Montalban	22. 25	72. 05	72	236	7, 114
Nirgua	21. 67	71	763	2, 503	2, 000
Barcelona	27. 45	81. 41	13	43	12, 000
Carupano	27	80. 06	8	26	11, 000
Maturin	27. 50	81. 50	7	23	12, 000
Barquesimeto	25. 50	77. 90	522	1, 711	29, 000
Ciudad Bolivar	28. 23	82. 81	57	187	11, 000
Rio Caribe	29	84. 2	5	16	6, 000

The variation of temperatue during the year in the hottest localities is very small, or, say, from 15° to 17° Fahr. From five years of personal observation it may be stated that in La Guayra the temperature ranges from 94° to 77° during the year.

GOVERNMENT.

The Government is a Federal Republic, with a constitution modeled after those of the United States and Switzerland. Its chief provisions are the autonomy of the States, popular elections, obligatory and open suffrage, free speech, free press, religious liberty, security of person and property alike to natives and foreigners, abolition of capital punishment, imprisonment for crime for not more than ten years, no imprisonment for debt, no *ex post facto* law, and immunity from search of houses and private papers.

The legislative power is vested in the senate and house of deputies, these bodies consisting, respectively, of three senators from each State and one deputy for each 35,000 inhabitants, and one for each fraction in excess of 15,000 inhabitants, thus forming a Congress of twenty-four senators and fifty-two deputies, all of whom are elected every four years.

The executive power is exercised by the President, with the affirmative vote of the federal council. He may suspend the execution of a law, but cannot veto it, as this power resides in the States, to which the suspended law must be referred for approval or veto. The term of office of the President is two years, and he is ineligible for a second term of office.

The judicial power resides in the high federal court and the inferior federal court, each consisting of eight justices and all elected by Congress for the term of four years.

THE FEDERAL COUNCIL.

This body is composed of one senator and one deputy from each State, chosen by Congress from its own members, together with one delegate from the federal district, all elected for the term of two years, [illegible] whom can be elect[illegible]

this council, is granted many extraordinary powers, such as to provide for the public defense, to expel individuals, to suspend guarantees, to nominate, appoint, suspend, or remove all public officers, to grant concessions, to administer the public lands and mines, and to organize an army in time of peace.

EDUCATION.

Free public schools were established and compulsory attendance decreed by the President, General Guzman Blanco, on June 27, 1870. From official statistics it appears that for the year 1884 there were 1,240 schools with 77,175 pupils, for the maintenance of which the sum of 2,122,965 bolivars ($309,732.25) was expended.

RELIGION.

The Roman Catholic faith is the religion of the country, although religious toleration is guaranteed by the constitution. There is, perhaps, not a Protestant church in the land; yet it is believed that a church might be established and a congregation, res ectable in character and number, assembled in the city of Caracas.

CHARACTER OF POPULATION.

While there are no statistics from which to determine, with any degree of accuracy, the race or color of the population, yet, from observation and information, it would probably be just to assume that 60 per cent. are Indians and negroes, 30 per cent. are of mixed blood and 10 per cent. are of the white race.

VITAL STATISTICS.

Though only meager information is obtainable, yet enough of official statistics has been collected to give some fair idea of the health, &c., of this immediate section.

In the city of La Guayra, with a population of 7,428 souls, there were in the year 1885 51 marriages, 294 deaths, and 255 births; of the latter, 144 were legitimate and 111 illegitimate children.

In the city of Caracas, with a population of 55,638 souls, there were in the year 1883 239 marriages, 1,843 deaths, and 2,473 births; of the latter, 1,235 were legitimate and 1,238 illegitimate children. In the year 1884, there were 208 marriages, 1,731 deaths, and 2,301 births; of the latter, 1,147 were legitimate and 1,144 illegitimate children. Turning to page 453, sixth annual report bureau of statistics of the State of Indiana, for the purpose of comparison, it is observed that in that State during the year ended September 30, 1884, with a population estimated at 2,056,262, there were 18,762 marriages, 15,368 deaths, and 40,153 births, of which latter 39,580 were legitimate and 573 illegitimate children.

IMMIGRATION.

timated that

MANUFACTURES.

With the exception of some few and small establishments for manufacturing soap, candles, chocolate, starch, macaroni, shoes and hats, and some tanneries, saw-mills, and iron molders' shops, there is nothing of the kind in the country. Even these can scarcely be said to have attained to the size or importance of manufactories.

MINES.

The richest are the gold mines in the State of Bolivar and the copper deposits in the State of Lara. Gold and silver are also found in the States of Carabobo, Lara, and Bermudez; gold, copper, and kaolin in the State of Guzman Blanco; coal, pitch, and sulphur in the States of Zulia and Bermudez, and petroleum in the State of Los Andes. There is also a pitch lake at the mouth of the Pedernales River, on the Gulf of Paria, that is quite as extensive and valuable as that of the island of Trinidad. All these mineral deposits are as yet undeveloped, except the gold of Bolivar and the copper of Lara.

The gold mine "El Callao," Guayana, State of Bolivar, is, so far as is known, the only important and valuable one, which, from its opening from 1871 to 1884 inclusive, has yielded 76,725,010.80 bolivars ($14,807,926.08). In the latter year the product amounted to the sum of 17,076,190.08 bolivars or $3,295,704.69. While no later statistics can be obtained, yet its reputation is fully maintained.

The copper mine of Aroa, State of Lara, like the "El Callao" mine, is directed by an English company, and the ore is exported to Swansea, Wales. The only available information shows that from 1880 to 1883 inclusive, the product amounted to 75,200 tons of ore of the value of 16,137,951 bolivars, or $3,114,624.54. The yield from October 1, 1883, to September 30, 1884, was 26,261 tons.

In addition to the foregoing it should be stated that there are deposits of guano and phosphates upon the Orchilla and Aves Islands that are being mined by Mr. B. F. Folsom, of Philadelphia, and the products exported to Philadelphia and Baltimore.

THERMAL AND MINERAL SPRINGS.

While little accurate information can be offered with respect to these, yet they are known to exist in the States of Carabobo, Zulia, Bermudez, Guzman Blanco, and Los Andes. The springs of Las Trincheras, near the railway now under construction between Puerto Cabello and Valencia, are reputed to be similar, in all respects, to the Hot Springs of Arkansas; and, in view of their character and the mild winter climate, there is reason to believe that their value is not yet fully appreciated.

FISHERIES.

Along the eastern coast and about the island of Margarita the supply of good fish is abundant, yet beyond the primitive method of hook and line fishing little effort is made to develop the interest. The red snap-

RAILROADS.

The people of the United States justly regard railways as the great agencies of civilization and the prime factor for the development of our internal resources. Their importance, as tending to these results, though long unnoticed or disregarded by the people of Venezuela, is being now more fully appreciated; and the present administration, comprehending their value not only as we esteem them, but also as a means for preserving the tranquillity of the country, is making strenuous efforts to develop an extended and important system of railways. The credit of the Government has been freely offered and liberal concessions have been granted to these enterprises; and it is confidently believed that, with English and French capital already enlisted, the era of railroads is about to be auspiciously inaugurated.

The present railway system of the country embraces the Bolivar Railway, from the port of Tucacas to the copper mines of Aroa, in the State of Lara, about 90 kilometers or nearly 56 miles long, and the La Guayra and Caracas Railway, about 38 kilometers or nearly 25 miles long. An important road from Puerto Cabello to Valencia, about 33 miles long, is now in course of construction, with every prospect of early completion. Two short lines now in operation, connect Caracas with the small adjacent towns of Petare and El Valle.

Concessions have been granted to European capitalists for the construction of railway lines, as follows:

From Puerto Cabello, via Taria, San Felipe, Yaritagua, Urachiche, and Chivacoa, to Araure and Bruzual.

From Maracaibo to Cojoro, on the Caribbean Sea.

From Merida to Mucuchies, Bobures, or other points on the western limits of Venezuela.

From the Orinoco River to Guicipata, in the gold region of Guayana.

From Encontrados to La Fria.

In view of the favorable terms extended to the contractors by the Government, there is good reason to hope that the construction of part, if not all, of these lines will be promptly undertaken.

TELEGRAPHS.

The telegraph system is owned and operated by the Government, and consists of seven lines, the principal of which connect the city of Caracas with La Guayra, Barcelona, Carúpano, Güiria, Cumaná, Ciudad Bolivar, La Victoria, San Fernando de Apure, Valencia, Maracaibo, and San Antonia del Tachira, at which latter point connection is made with the wires of Colombia. Dispatches are wired to any point at the rate of 20 cents for ten words.

CURRENCY.

[illegible] of Venezuelan gold and silver has been re- [illegible] was ready to begin

Another decree of the Executive, lately issued, directs the collection of a duty of 125 bolivars per kilogram, or $24.12½ per 2.2046 pounds avoirdupois upon the export of gold bullion, which, it is presumed, will prevent the exportation to England of the product of the gold mines of Guayana, and necessitate the coinage of the same into Venezuelan money.

TARIFF CHANGES.

Amongst several recent modifications of the tariff on imports that have been duly reported to the Department of State, the most important, as affecting American interests, is that decreed upon the importation of lumber. By the terms of the decree, square logs, suitable for sawing into plank, are dutiable at the rate of 19.3 cents, American gold, for 22.046 pounds avoirdupois, and undressed planks are taxed at the rate of 19.3 cents, American gold, for 8.818 pounds avoirdupois. These rates of duty practically close the ports against our lumber.

CONDITION OF CROPS.

The favorable condition of the crops, as reported October 8, ultimo, is still fully maintained, and the harvest of coffee, cocoa, corn, sugar, beans, &c., will be abundant.

TO IMPROVE OUR TRADE.

This question has been treated by the consular officers of the United States from every point of view. Discarding many minor details that may contribute, in some degree, to that end, it may be suggested that the United States of America chiefly needs an adequate mercantile marine that, aside from competing with the large number of European steamships that regularly frequent these waters, shall place the country in direct communication with these South American ports. A line of steamships between Venezuela and the United States was established in 1880, and the steady and gratifying increase of our trade since that time, as is witnessed by personal observation, as well as by statistics from the United States Treasury Department herewith transmitted, seems to warrant the belief that this is the chief factor for the extension of our trade. As another important means to that end, we should have commercial travelers of tact and intelligence, speaking the Spanish language, and engaged with reference to their talking and selling abilities. When these needs are supplied, the question of how to increase our trade will answer itself in a satisfactory manner. But it seems useless to hope for these things until the period of permanent overproduction in the United States has arrived.

IMPORTS.

The impracticability of obtaining a detailed statement of the amount and value of imports by countries at this port for the year ended December 31, ultimo, has been fully explained to the Department.

NAVIGATION.

The usual return of navigation at the port of La Guayra for the calendar year 1886 is also inclosed.

In the annexed returns, the weights are given in pounds avoirdupois and values are stated in United States currency.

WINFIELD S. BIRD,
Consul.

UNITED STATES CONSULATE,
La Guayra, January 10, 1887.

Declared value of exports from the consular district of La Guayra to the United States during the four quarters of the year ended December 31, 1886.

Articles.	Quarters ending—				Total.
	Mar. 31.	June 30.	Sept. 30.	Dec. 31.	
Cocoa	$7,454 31	$20,184 40	$8,613 29	$5,844 51	$42,096 51
Coffee	494,276 24	287,203 17	124,593 73	90,100 36	996,173 50
Hides	38,452 06	33,930 57	20,002 22	12,919 46	105,304 31
Skins	11,453 67	18,903 54	9,622 27	4,280 23	44,259 71
Sundries	2,426 23	5,592 45	4,171 14	2,787 36	14,977 18
Total	554,062 51	365,814 13	167,002 65	115,931 92	1,202,811 21
Total for 1885	571,431 20	521,306 85	157,331 84	121,115 23	1,371,185 12
Increase			9,670 81		
Decrease	17,368 69	155,492 72		5,183 31	168,373 91

Exports from the port of La Guayra for the calendar year 1886.

Articles.	England.		France.		Germany.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Cocoa	509,924	$78,472 45	4,858,718	$708,481 19	856,566	$124,574 17
Coffee	1,264,232	123,145 00	3,670,917	369,122 15	8,871,590	865,507 92
Hides	8,829	1,236 74	3,697	518 01	165,502	21,774 45
Skins					8,219	2,099 26
Specie			4,927	71,555 14	562	28,070 69
Sundries	116,841	10,078 85	66,418	4,142 75	193,696	15,867 50
Total	1,899,826	212,933 04	8,604,677	1,153,819 24	10,096,135	1,057,893 99
In 1885	1,924,730	205,514 89	9,605,423	1,154,442 24	7,595,549	875,054 08
Decrease				623 00		
Increase		7,418 15				182,839 91

Articles	United States.		Other countries.	
	Pounds.	Value.	Pounds.	Value.
		[illegible] 20	773,411	$116,095 29
				90,480 33

Exports from the port of La Guayra for the calendar year 1886—Continued.

RECAPITULATION.

Articles.	Total.		Total in 1885.	
	Pounds.	Value.	Pounds.	Value.
Cocoa	7,117,724	$1,045,649 30	4,916,305	$814,622 32
Coffee	25,078,795	2,450,024 60	26,230,721	2,575,819 11
Hides	810,201	111,340 53	1,226,066	136,686 17
Skins	173,698	41,423 59	356,721	88,986 32
Specie	5,711	138,239 72	1,106	160,612 47
Sundries	514,027	36,044 50	621,056	50,696 47
Total	33,700,156	3,822,722 24	.....	.....
In 1885	.....	.....	33,351,975	3,827,422 86

Navigation at the port of La Guayra for the calendar year 1886.

Flag.	From or to—	Entered.				Cleared.			
		Steamers.		Sailing vessels.		Steamers.		Sailing vessels.	
		No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
American	United States	31	40,120	3	1,083	31	40,129	3	1,083
British	Liverpool	76	95,106	11	3,095	76	95,106	11	3,095
Dutch	Amsterdam	12	10,200	.....	.....	12	10,200	.....	.....
French	France	29	60,884	4	1,049	29	60,884	4	1,049
German	Hamburg	22	33,557	8	2,673	22	33,557	8	2,673
Spanish	Havana	12	12,384	1	268	12	12,384	1	268
Various	.....	.....	.....	7	1,354	.....	.....	7	1,354

Export of guano from Orchilla Islands, Venezuela, to the United States of America.

Year.	Vessels.	Guano.	Year.	Vessels.	Guano.
	No.	*Tons.*		*No.*	*Tons.*
1876	13	3,700	1883	25	13,000
1877	3	1,500	1884	28	16,800
1878	6	2,800	1885	4	2,300
1879	4	2,000	1886	8	5,300
1880	14	8,300			
1881	28	15,700	Total	150	80,400
1882	17	9,000			

This guano was shipped in American vessels, one-fourth of it going to the port of Philadelphia, and the residue to Baltimore and other southern ports.

WINFIELD S. BIRD,
Consul.

UNITED STATES CONSULATE,
La Guayra, January 11, 1887.

CHINA.

SHANGHAI.

Report of Consul-General Kennedy.

That part of the trade of Shanghai coming under the cognizance of the Imperial maritime customs shows a gross value of 51,648,423 Haikwan taels, against 50,262,938 for the year 1885, and 40,949,301 in 1884.

The commissioner of customs, in a valuable résumé of the Shanghai trade for the year 1886, states:

If the employment of a larger amount of tonnage, with a marked advance in the gross value of the trade of the port, and an increase in the revenue collection, indicates a prosperous state of trade, then the past year must be regarded as one of the most flourishing in the commercial annals of Shanghai, inasmuch as the general statistics of all the chief divisions of commerce exhibit an improvement over preceding years.

SHIPPING.

An inspection of Table I, appended to this report, shows that the trade of 1886 employed considerably more vessels than in previous years, as the total entries and clearances for the period under review exceed those of 1885 by 729 vessels, aggregating 774,198 tons, of which total increase 644 were steamers, of a capacity of 665,123 tons, and 85 sailing craft, representing 109,075 tons. The table referred to above shows the nationality and other particulars of the vessels engaged, and it will be noted as a somewhat extraordinary fact that steamers under the American flag have now wholly disappeared. American sailing ships, however, in the shipping return take second place among the foreign flags.

VALUE OF TRADE.

The augmentation in the entries and clearances has naturally contributed to an increase in value of trade, imports and exports for 1886 being 51,648,423 Haikwan taels, against 50,262,938 in 1885, or an increase of 1,385,485.

Inspection of Table II will prove that foreign goods imported from abroad and Hong-Kong have only increased by 317,109 Haikwan taels, and that after deducting the excessive reshipments of foreign goods to native and foreign ports, the net total value of foreign imports credited to Shanghai shows a decrease of 1,414,973 Haikwan taels. If, however, we take into consideration that these figures represent but a small per centage of the total of nearly 60,000,000 Haikwan taels, given as the value of the foreign import trade, and that the statistics for 1885 were abnor- [illegible] for reasons assigned below, the falling off in this year's im- [illegible] anything more than a mere tem- [illegible] of the pre-

The gross value of the trade, which really represents the cargoes imported, exported, and re-exported, was 4,668,716 Haikwan taels over 1885, and no less than 19,456,279 over the figures of 1884, when commerce was paralyzed by hostilities on the coast.

FOREIGN IMPORTS.

Cotton goods.—The extraordinary increase noted in the importation of 1885 has been followed by as marked a decline during 1886, the total falling off in staple cottons as compared with the previous year amounting to 1,627,758 pieces, made up of the following varieties:

Articles.	Pieces.	Articles.	Pieces.
Gray shirtings	534,507	English sheetings	68,132
White shirtings	477,500	Cambrics	194,964
Dyed and plain shirtings	64,905	Velvets	3,755
T-cloths	250,046	Unclassed	33,949

It should not, however, be inferred that this decline indicates retrogression, inasmuch as the figures of 1885 were extraordinarily high, and ought not to be made a basis of comparison, as that year witnessed the renewal of friendly relations with France, whereupon trade made good the leeway that had been lost during the hostilities, consequently 1885 was credited with more than its average annual share of traffic.

Notwithstanding that, on the whole, the year's importation of cotton goods was characterized by a falling off, there are some noticeable improvements in the figures of certain commodities, such as handkerchiefs, American sheetings, and cotton yarn.

The aggregate consignment of sheetings of all kinds also falls short of those of 1885; but taking the American variety separately, we notice the significant increase of 22,239 pieces over last year; so that the decrease falls entirely on the English goods to the extent enumerated above.

Cotton yarn shows a general increase of 34,473 piculs, but while that from the English mills exhibits a decline of 58,456 piculs, the Indian staple shows an increase of 92,627; so that it would seem that not only is the Indian article gaining favor in the China markets, but it is doing so at the expense of the British yarn, which it threatens to displace. Possibly the enhanced demand for yarn has had the effect of lessening the consumption of cotton cloths.

Woolen goods.—With the exception of a falling off in lusters and unclassed fabrics, there has been a marked improvement over last year's figures, aggregating 85,992 pieces, which compensates in value for the decline in the importation of cotton goods.

Opium.—There was a total increase in the importation of opium of all kinds of 714 piculs, with a depreciation in value of 133,010 Haikwan taels. This decline in value, with an increase in the quantity imported, is due to the fact of the price of drug being estimated at an average of 40 taels per chest lower than in 1885, when Patna was quoted as high as 440 to 450 taels a chest, against 415 taels

increase of 2,444 piculs; but the marked falling off in Benares of 1,730 piculs reduces the net increase to the quantity stated above. From various causes, business is said to have been unprofitable. Foreign merchants attribute the unremunerative state of affairs to increased likin, to the keen competition between importers, and to excessive supplies tending to depress the market. The competition between the Peninsular and Oriental Steam Navigation Company and the Austro-Hungarian Lloyd's Steam Navigation Company, and the consequent reduction in the rate of freight on opium from 22 to 3 rupees per chest from Bombay to Shanghai during the latter half of the season, brought about a further depression in the market, as merchants in India were induced by these low rates of freight to ship largely in excess of requirements, and but for the failure of the crops of native drug in Honan and the Tangshan district of Kiaagnan, which helped to maintain the price of Malwa, the results would have been most disastrous, as there was no knowing to what low ebb prices might have fallen. Our returns only record 1.26 piculs as the total importation of native opium by vessels entering at this office.

Metals.—The increase noted in this branch of trade for 1885 has not been maintained, but the decline is not so marked as to call for special comment. Of the items enumerated in Table III, those showing a considerable improvement over the high figures of last year are unmanufactured copper, pig-iron, lead, spelter, and zinc.

Sundries.—On the whole, trade in goods classed under this heading seems to have been satisfactory.

Most commodities exhibit a moderate increase, with the result of a net gain in the total value of 749,693 Haikwan taels. The greatest falling off in any single article appears against matches, which are short by over half a million gross. On the other hand, flint-stones, which are presumably used for the same purpose as matches, show an increase of 40,000 piculs.

Kerosene oil continued to be imported in quantities exceeding all previous returns. During 1886 the increase was 8,417,694 gallons over the year 1885 (or, say, a little more than one-third higher than the figures of 1885), whereas the importations of the latter year doubled those of 1884.

The total value of the whole of the foreign import trade was 59,733,064 Haikwan taels, being a slight improvement over the preceding year.

NATIVE IMPORTS.

Native imports, chiefly from Tientsin, the Yangtsze ports, Ningpo, Swatow, Canton, and Hong-Kong, yielded 42,382,891 Haikwan taels to the gross value. Table IV enumerates the varions products which contribute to this important branch of our commerce and its redistribution between coast ports and foreign countries. It has already been noted that the bulk of these imports are eventually reshipped, and that but a small share remains to the credit of this port after re- [illegible] last column of the above-

improved demand for low-grade teas both for the English and Russian markets. That in the latter country was brought about in a measure by an increase in the duty, and as the retail price could not well be increased, sellers have endeavored to cover the increase in duty by buying low-cost leaf. The fall in sterling exchange, which declined as much as 10 per cent., is said to have stimulated purchases, as buyers were able to give a considerable advance in tael prices upon rates current at the corresponding period of 1885, without increasing the laying-down cost.

The advance in tael prices here, consequent on the decline in exchange, enabled native shippers of tea from Hankow for sale on this market to make good profits, which induced further buying for resale here, but these purchases meeting a rising exchange, depreciated the tael value, so that the losses thereon have been heavy, and it is doubtful if this branch of the business has paid operators. Neither has the result to foreign buyers been satisfactory. The losses on medium to finest grades have been considerable, rates in England for such qualities being unprecedentedly low, so low that medium and finest kinds were selling at almost the same sterling price, and not a few instances can be quoted of teas with a difference of nearly 20 taels in their cost in China selling at about the same price on the London market. This depreciation in their value in England is partly assignable to a falling off in the Russian demand for fine tea, but the want of keeping properties in China leaf, probably owing to hasty and imperfect preparation, has also a good deal to do with it.

Green tea falls short of the export of 1885 by 21,461 piculs. There was considerable delay between the arrival of the first musters and the beginning of business, owing to the very low prices current upon the American and English markets, their range being so low that buyers were unable to give within two to three taels of the figures required by teamen in order to cover their cost.

After a time, failing to induce business, two or three of the native hongs arranged to ship to America for sale on their own account. This forced the hands of buyers who regarded these operations as the equivalent of the opening of the market, and moderate purchases ensued, in order to have some teas going forward with the first shipment.

The result of these early ventures on native account giving a better out-turn than they would have obtained here induced further operations of a similar character, and they were continued to such an extent as to make them an important feature in the business of the season.

Brick tea was shipped to the extent of 29,845 piculs over the export of last year, with a consequent decline in tea dust, from which article brick tea is made, of 5,793 piculs.

The countries to which tea was exported and the quantity taken by each are detailed in Special Table No. 2.

Silk.—All the various denominations of silk shown in the returns compare very favorably with the export of the previous year.

The increase over 1885 in the case of raw silk is 6,402 piculs; in silk refuse, 11,429 piculs; in wild silk, 2,494 piculs; and cocoons, 2,069 piculs, indicating exceptional purchases during the past season. According to the report of one of the leading shippers, a large business was done during January, and prices for chop No. 4 Tsatlee were then 390

make itself felt, and notwithstanding an increase in the European, Japan, and Canton crops, shipments have hardly equaled the increased rates of consumption, especially in Lyons. The consequence has been a gradul advance in the value of silks, and taking chop No. 4 as the basis prices are now 405 to 410 taels. The rise in all sorts has been gradual and progressive, and it looks as though higher prices would yet be probable if consumption keeps so large.

Sundries.—Among the articles grouped under this heading, in which foreign merchants invest capital, such as hides, hair, hemp, rhubarb, &c., there has been a decline in shipments; but in skins of all kinds there has been a noteworty advance of 217,151 pieces.

TRADE UNDER TRANSIT PASS.

Notwithstanding that there were 12,054 more passes issued this year than 1885 to cover foreign imports inland, the value of this branch of traffic has declined by 78,546 Haikwan taels, from which fact we may conclude that, allowing for depreciated prices, the goods are now made up in smaller lots than formerly, and that consumers and inland retail dealers resort to this market to obtain supplies instead of transacting business as hitherto through large commission houses.

The outward transit traffic has improved in value by 241,617 Haikwan taels with only an increase of 66 passes, but reference to the statistics shows that the large consignments of certificated silk from the interior accounts for this excess.

REVENUE.

The total collection for the year amounts to 4,354,109 Haikwan taels, which figures have only once been exceeded, by a sum under 20,000 Haikwan taels, in 1881.

SHIPPING.

Under this head America is represented by sailing vessels only. Of the 61 which entered the port 22 were from New York and Philadelphia with kerosene oil; 2 were from the Pacific coast with lumber; 1 from Australia with coal, and the balance are vessels trading on the coast and Yangtsze.

STEAMERS.

Twenty-six steamers under the British flag cleared for New York via coast ports, the majority of them belonging to a regular line running from London to Hong-Kong and Japan, thence to Shanghai and Southern Chinese ports via Suez Canal to New York.

IMPORTS.

By reference to the accompanying tables it will be seen that the im- [illegible] cotton and kerosene oil, our chief articles of ex-

Mr. Emens, the interpreter of this office, who sat as assessor, and to whose exertions in the matter the conviction is due.

Additional consignments were received, however, of unbranded American sheetings, and, following upon the conviction of a native merchant who had been fraudulently stamping this class of goods, together with a proclamation issued by the local authorities upon my representation, which was posted in conspicuous places throughout Shanghai, detailing the conviction of the native merchant, and in forcible language forbidding the practice of imitating our brands and trade-marks, the importers had to seek a new market, as the Shanghai dealers thus received an effectual check in a cunning scheme which was calculated to work a great injury upon this branch of our trade with China.

The proclamation was published in the Chinese newspapers which circulate throughout all the treaty ports, and I took the precaution of writing our consuls in China on the subject, warning them against attempts on the part of the Shanghai dealers to work off these goods, which they did not dare offer for sale, but no further counterfeiting was heard of.

I was informed that the action taken brought about something of a panic among native dealers, and such of the goods as had been falsely branded were hurriedly sent to dye-houses, where they were soon rendered past recognition.

From July 2 to September 9 last it is known that 22,000 pieces of unbranded sheeting were imported into Shanghai. This, however, forms but a small proportion of the total importation of this class of goods during the first half of the year. I take this opportunity of renewing my suggestion that all of our American manufacturers be required to plainly brand their goods. Their failure to do so affords an opportunity such as above related, and cannot but prove a general detriment to our trade.

SUNDRIES.

Under the head of "sundries" a considerable amount of American manufactured goods is imported. There is no means of obtaining reliable details of this business, but our merchants are alive to the situation and anything at all likely to be acceptable to the Chinese is introduced. By every mail I have communications from our manufacturers and dealers wherein my aid is asked in furthering their interests. These applications always receive my careful attention, and in many cases I put the writers in correspondence with the importing houses of Shanghai. A great many of these letters are from people seemingly ignorant of the conditions and requirements of the Chinese, and also, if I may be permitted to say so, of the duties of a consul.

Another class of people send out a flood of circulars and other advertising matter addressed to unheard-of places, exhibiting a waste of time and money. By way of illustration I may mention that a firm of New York carriage-builders recently sent an elaborate and expensive pamphlet and price-list to all the open ports and some of the interior towns of China, addressed "To the leading carriage dealer of ——."

The absurdity of this indiscriminate advertising is apparent when it is known that there are no carriage roads in China (except in the

the Postal Union, there is no means of forwarding unpaid mail matter except to the treaty ports; and as the circular was in English, the "leading hardware dealer" in some walled city a thousand miles from the coast, if the circular had found him, would be unable to understand a word of it, or, if he could, and succeeded in forwarding an order to the advertiser, how would the latter go about filling it?

Inquiry at any of our commercial cities, especially New York, Philadelphia, and Boston, would result in finding a firm with a branch house or correspondents in China, whose experience and connections will be of great use to any one seeking to place his goods on the Chinese market. China has no more use for fancy light buggies than the United States has for clumsy sedan-chairs, and I would advise our people to acquaint themselves somewhat with the nature of the market before they blindly distribute their advertisements.

With a view of obtaining practical information and hints on the subject of protecting and increasing our trade, I addressed all of our American merchants here, inviting such an expression of their views as their experience and knowledge of the requirements of our commercial relations with China might suggest, particularly referring to the development of trade and existing regulations affecting it.

The response to my invitation has not been as general as I had hoped, which is doubtless in a great measure due to a press of other affairs consequent upon the opening of a busy season. I give the following abstracts from the most interesting replies received, which came from our leading and longest established American firms:

As a general principle, it may be stated, we think, that trade requires no fostering legislation, and that, when once treaties have been made determining the basis on which goods may be imported and exported, the rest may be safely left to the enterprise of the merchant who, in these days of keen competition, is certain to push its development in every direction where he finds it can be done with profit.

What the American trade requires is:

(1) That China should be held to her treaty engagements, particularly in connection with the tariff on imports.

(2) The abolition of such regulations as actually impose serious obstacles to the expansion of our trade.

With regard to the last there can be no question that we are heavily handicapped in the race that every year becomes more keenly contested, by regulations which, as they appear to have no foundation in reason, may safely be called vexatious.

There is the consular invoice regulation, which has recently been so freely discussed by the chamber of commerce that we will not say so much on this point as we otherwise should.

We very much doubt the efficacy of certified invoices at all, as, if merchants are unscrupulous, they will not hesitate to swear to false valuations; but, whether false or true, their documents are taken at their real value at the ports of entry in the United States, and the goods are examined the same, or if apparently undervalued are appraised by the customs and duty claimed on the appraised cost.

The time and labor of preparing three or four copies of a certified invoice is a serious item in the expense of every mercantile firm, and it is hard enough to have to incur this heavy charge in the case of dutiable goods; but, when the merchandise is not dutiable, as in the case of tea, raw silk, &c., then the annoyance becomes much

aggravated, facility for a free exchange of samples, and

respect,

Another firm states that—

The principal points in connection with trade between China and the United States that call for particular remark seem to be, first, the steady increase in the consumption of American domestics; second, the imitation by natives of trade marks on unstamped cloths; and, third, the over-supply of kerosene oil and the low value ruling. The consumption of the oil is checked by the imposition of extra lekin (internal revenue) at the outports.

Nothing new, however, is suggested in connection with these three points. This firm furnished the acting consul-general last year certain statistics regarding their filature business which were embodied in his annual report. In this connection they state:

As regards our filature business, there is very little of interest to add to the full report we made last year to Mr. Smithers. Our production has somewhat increased and finds a ready sale on the European markets. In connection with the silk trade generally the growing demand for so-called native filatures is worthy of remark.

I am informed that the reason why this American firm send all the productions of their filatures to the European market is that they turn out a grade of goods that is unequaled anywhere, and in Lyons they can obtain nearly 200 taels per picul more for it than in America, where such a high grade of goods is not appreciated—at least there is no demand.

EXPORTS.

There was exported from Shanghai to the United States during 1886, merchandise, consisting chiefly of tea, silk, and straw-braids, valued at 6,372,845 Haikwan taels.

With the exception of a recommendation, under another heading, respecting the facilitating of forwarding of merchandise samples from China, I have nothing to report, relative to export, that has not been said in the commissioner of customs' résumé, above quoted.

TOOLS AND IMPLEMENTS.

Much has been written in regard to the introduction of mechanical tools and agricultural implements among the Chinese, and there is little left to be said on this subject. It is certain that American tools and implements will have to be specially adapted to the requirements of China before an attempt is made on the part of the Chinese to utilize improvements of which they can alone learn by experience.

Chinese mechanics and farmers have strong prejudices for the implements that have been in vogue for centuries. Experiments of forcing American tools here have signally failed, with a few exceptions. Among these exceptions I may mention saws, pumps, and certain edged tools.

When a Chinaman sees something he can use to a profit he adopts it. There is no reason why we should not supply them with tools and implements, fashioned after their own models, making them better and cheaper with our machinery than they can be made by hand.

Their plows are of the crudest sort, consisting of a crooked beam and a wooden share, used even before the days of Confucius.

A light plow, made somewhat on this style [illegible]

EXCHANGE.

The great disparity in value between gold and silver and the fluctuations in the value of the latter tend to unsettle values. Calculations have to be based on such risks as to produce a deleterious effect on trade.

All estimates of exchange are made in English currency. The banks fix the rates daily, and it has been so much against the merchant that considerable depression has been experienced here. Purchasing his goods in gold and paying for them in silver has (owing to the decline of the latter, as all transactions here are in this currency) so reduced the margin of profit as to result too often in loss.

When asked the cause of this almost panicky condition no intelligible reason is assigned. Some assert that the passage of the "Bland" bill by our Congress contributed very materially to bring it about. How far this may be so is to a great degree a matter of conjecture, as first one cause and then another is assigned.

From June 1 to August 27, 1886, the Hong-Kong and Shanghai banks' valuation of a tael in United States currency, as fixed by them daily, averaged $1.0675. The tael is not a coin, but simply a weight of silver, equivalent to 1.37 ounces avoirdupois.

The Haikwan tael, as used in the table accompanying this report, is equivalent to 1.114 Shanghai taels.

POSTAL UNION—ITS EXTENSION TO CHINA.

An effort has been made by the Chinese Government through the imperial maritime customs, the ruling spirit and able administrator of which is Sir Robert Hart, who has an ably-organized and well-disciplined staff, consisting of picked men from almost every existing nationality, to bring China within the Postal Union. A postal commissioner has been appointed, and in August last he laid before the representatives of the countries with postal agencies established at this port the scheme of organizing a national post-office. I communicated his proposition to our Postmaster-General, and a favorable response was received, a copy of which I transmitted to Sir Robert Hart, at Peking, who acknowledged the same, with an expression of appreciation of the promptness and liberality of our Government in entertaining the proposition.

The matter was considered by the residents of Shanghai at a public meeting held September 21, 1886, summoned at the instance of the Shanghai General Chamber of Commerce, with the concurrence of the Municipal Council, at which the following resolution was passed:

Whereas the present mail service at this port is satisfactory to the community; and, whereas it is feared that any change in the system, by which the carrying or control would be intrusted to the Chinese, would not be an improvement, but may be the reverse: Therefore,

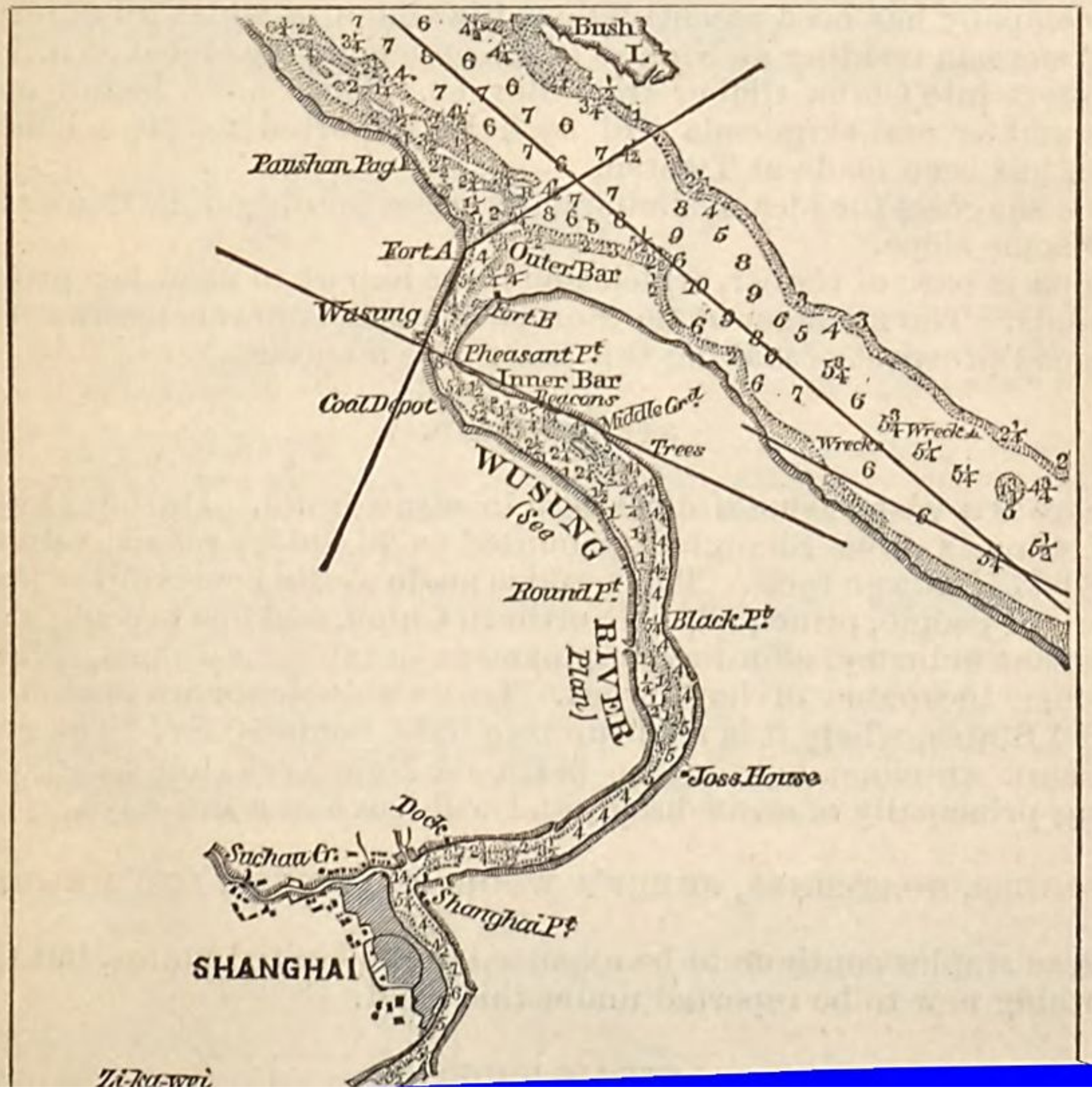
Resolved, That in the opinion of this meeting, the withdrawal of the foreign post-offices at this port is not to be desired.

[illegible] somewhat hasty. At this meeting a [illegible] represented, only

The criticism offered by this public meeting bordered upon the verge of sentimentality, and the action taken must have been disappointing to the native party of progress. By perfecting the proposed arrangement of organizing a postal department, with such a ratio of foreign employés as to insure competency and dispatch, China would be taking a step in the direction of liberalizing her policy, and incidentally conduce to the establishment of a broader spirit, every step in which direction tends to open up avenues of trade. Of course circumspection and caution in yielding so important an adjunct to commerce as a speedy and reliable mail system must be exercised.

THE WOOSUNG BAR.

By the subjoined plan, the relation the Woosung Bar bears to the trade of this port will be clearly seen. The Woosung Bar is an accumulation of mud extending across the entrance to the river, over which the highest spring-tide averages 23 feet and at neap-tide 10 feet. For some years the subject of dredging this bar formed a topic of negotiation between the foreign and Chinese authorities. Recently fresh efforts have been made to induce the Chinese authorities to have this obstruction to navigation removed. At present there is some hope of success.



who has received instructions, we are informed, to proceed with the work, and he agreed to receive estimates from competent parties for the undertaking. Large vessels are now compelled to lighter their cargoes, which are carried to Shanghai, a distance of 12 miles up the Huang-pu, by smaller craft, entailing extra expense and loss of time.

About five years ago, the Chinese purchased a small dredger, which proved unsuitable, and there is a general feeling among foreigners that the Chinese have not much heart in removing this natural obstruction at the entrance of the river to their commercial metropolis. The Huang-pu is almost exclusively a tidal river, and the opinion has been expressed by some that it would be impracticable to keep the bar scoured out on the Eads jetty principle, as at the mouth of the Mississippi. It is thought the outflow of water is insufficient, consequently the dredging must be resorted to.

The mercantile community here is much exercised on the subject, and it is confidently expected that practical results will ensue from the present agition. Shanghai is the great port of China, and the amount of capital represented here, and business done, demand every effort to increase the facilities for trade.

BORNEO TIMBER COMPANY.

A company has been recently started in China, of which an enterprising American residing at Ningpo is the manager, the object of which is to import into China timber from Borneo. They have begun operations and several ship-loads will soon be imported to fill a contract which has been made at Tientsin.

This suggests the idea of similar enterprises for obtaining timber from our Pacific slope.

China is bare of timber, which she must import to meet her growing demands. The manager of the Borneo company informs me that there is a good prospect of making this enterprise a success.

STRAW-BRAID.

There is a vast business done here in straw-braid. During 1886 the total exports from Shanghai amounted to 76,346$\frac{58}{100}$ piculs, valued at 1,908,663 Haikwan taels. This braid is made at the homes of the poorer classes of people, principally in Northern China, and has become a most important industry, affording employment suitable for women, children, and men incapable of hard work. Large shipments are made to the United States, where it is made up into hats, bonnets, &c. The American bark Antelope, now on the berth for New York, has a cargo consisting principally of straw-braid, and will leave in a few days.

COW-HIDES, GOAT-SKINS, SHEEP'S WOOL, GALL-NUTS, AND RHUBARB.

[illegible] to be exported to the United States, but there

texture and cheapness of these articles might make them available for the laborers in the southern portion of the United States, where rice is cultivated extensively. The art of making them would have to be acquired, but, when once known, it would probably grow up into an industry of some consequence. They are extensively used in this and adjoining sections of China.

COTTON-GINS.

On a visit a few days since to Ningpo, I was informed that if the Americans would make a hand cotton-gin for the Chinese it would meet with a ready and profitable sale. There is a Japanese gin of this kind, worked by foot, but it does not pick the seed well, and is but partially adapted to its purpose. If the inventive genius of our mechanics could be directed to this they would soon make a suitable gin. The Chinese cotton is coarse and very short staple. The seed is also small. The machinery would have to be adapted to these conditions. An American gin, such as is now used in the South, with a crank to turn by hand, could be easily suited to this work. Anything not operated by manual labor would not be taken up by the Chinese, whose conservatism is against innovations of too pronounced a type; besides, their cotton-planting is done in small areas by small farmers, and they are not accustomed to other than the simplest machinery.

If any gin-maker wishes the idea elaborated I could get the details for him.

ANNUAL REPORT OF THE STATISTICAL SECRETARY OF THE IMPERIAL MARITIME CUSTOMS FOR THE YEAR 1886.

Since the foregoing was written, I have received the report on the foreign trade of China for 1886, in which the statistical secretary, under date of April 9, 1887, in a preface to the returns, remarks:

> But, before proceeding to details concerning any special articles of commerce, it is necessary to devote a paragraph to the subject of exchange, an element which has affected many departments of foreign trade during the year to an extent only less grave than war itself would have done.
>
> In this short report, I may, however, do little more than mention it; but the commercial reader, with the figures before him, which I shall give, will have no difficulty in realizing its influence.
>
> The course of exchange during 1886 was lower even than in 1885. Its effect upon the silk market is referred to below, and it is also several times alluded to in the port reports which follow my own, especially in connection with tea. I have before me an exhibit of the closing rates at Shanghai for bills on London at four months' sight on European mail-day of each week throughout the years 1885 and 1886. From these quotations I give the following abbreviated table, taking the first quotation of each month:

Month.	1885.	1886.	Month.	1885.	1886.
	s. d.	*s. d.*		*s. d.*	*s. d.*
January	4 11¼	4 7¾	July	4 10½	4 5⅞
February	4 11	4 7⅞	August	4 11⅛	4 3⅝
March	4 10⅝	4 7⅛	September		

THE DEVELOPMENT OF AMERICAN TRADE INTERESTS IN CHINA.

As previously intimated in this report the activity of our merchants, stimulated by strong competition, tends to establish trade in every direction. So long as the merchant is assured of official protection and has a confidence that the consular officer will see justice done him in any differences that may arise between him and the native merchants, he is content that the development of commerce be left to him. However, as I am constantly in receipt of inquiries from our manufacturers and merchants in the United States relative to the introduction of their wares, I will give what appears to me as being suggestions worthy of attention.

If samples of goods adapted to the requirements of China were judiciously selected and placed before the Chinese, it might lead to business being done. The great difficulty in the way of establishing a profitable trade is the lack of economy on the part of the commission agents or importers.

The Germans are pushing their trade in this market by indomitable personal effort, economy, and strict attention to details. The Chinese are, certainly, very apt in learning the conditions of trade and are absorbing lines of business which were formerly monopolized by foreigners. Apparently innate traders and with the secret of economical living and minimizing expenses in every direction, their net profits are, of course, comparatively higher than those of their foreign competitors, which enables them to accumulate capital and defy foreign competition. All large transactions between foreigners and Chinese are usually for cash, but in some instances China merchants are granted credits.

A few days ago an American retiring from China leased some property to a Chinaman for a term of thirty years, at 5,000 taels per annum. This Chinaman is an extensive dealer in iron and naval stores. He also handles a considerable portion of the kerosene oil brought to this market. He began business in a very humble way, and by thrift, energy, and economy has risen to prominence as a capitalist and merchant, thus demonstrating the power of Chinese shrewdness and economy, with which American and European merchants must cope.

POST-OFFICE FACILITIES.

I again quote a remark of one of our leading American firms here:

The pushing of trade requires every facility for free exchange of samples, and nothing could be worse than the existing regulations in this respect.

I need not dwell upon this point, as it is a matter which has repeatedly been represented to the Post-Office Department by myself and predecessors in office, without an accomplishment of what is so badly needed. It appears impossible to gain anything by correspondence, and I would suggest that some one be deputed to investigate the re- [illegible] view of obtaining for the American the

navigation companies operating on the China coast are waiting an opportunity to establish steam communication with Chungking, the capital of Szechuen.

In a former report I compared the amounts of the principal woolen and cotton goods imported into Shanghai with the amounts of the same goods sent under transit pass into Szechuen, and also quoted abstracts from customs reports on trade in this part of China.

I have recently been informed that a company styled "The Upper Yangtsze Steam Navigation Company, limited," has been formed in London.

While complaints that imports exceed the requirements of the market are heard, the opening up of new territory cannot fail to demand attention.

SUNDRIES.

By reference to the subjoined table of imports, a good idea may be obtained of the sundry classes of goods for which there exists a demand.

Candles, soap, and cooking grease are articles in every-day demand. Of the former, during 1886, 29,726 packages, valued at 41,617 Haikwan taels, were imported. If the Chinese were given a good imitation of their style of red candles used in their worship an immense sale would result.

Oil for cooking.—In this country, where nearly every article of food is prepared in oil, a good substitute would find a sale.

Soap.—During 1886, 181,365 packages of soap, valued at 108,819 Haikwan taels, were imported. I am informed that there is a demand for a better grade—that now used being chiefly of very inferior make.

There is also a growing business in dyes and colors, flour and needles.

It is impossible, in a trade report for Shanghai alone, to discuss all the trade possibilities of so vast a country as China; but I hope to be able, later on, to make a more general report, and also treat of the enterprises anticipated and in progress that bid fair to bring about wonderful changes in all channels of commerce.

J. D. KENNEDY,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Shanghai, April 21, 1887.

FOOCHOW.

Report of Vice-Consul Cowles.

Foochow tonnage returns show, arrivals, 300,000 tons steam; 20,000 tons sail; the American flag shown only on a 180-ton Hong-Kong-bought schooner, whose three arrivals make the 540 tons American shipping.

The coasting vessels of western type displaced the panier-laden junk; for the former, cargo all inboard, could beat against monsoons, and the latter could not. The sailing vessels in turn now see themselves ousted by modern compactly-engined steamers. Such are available for charter from $30 a day (500 tons dead weight). Their expenses are moderated to a point where they can accept slow-loading and slow-discharging cargoes, such as coal, poles, peas, bean-oil, bean-cake, which were before the reliance of the sailing vessel. Some sailing vessels have already followed the junks to last moorings.

American enterprise is evinced here, however, in the fleet of 40 sixty-ton lighters, which lighter nearly half the hundred million pounds of tea hence twelve miles to the ocean-steamer berth below, and mostly by night, in swift tide and against foul winds, yet for years without serious mishap.

Imports from America none. The indirect imports for 1886 were totaled by Consul Wingate at $126,000. Tables for 1886 are as yet unavailable.

Foochow is the home of winter sunshine, poured from a clear sky, from the middle of October to the middle of January, so needs but 300 bales of heavy American drills and sheetings.

Fokien lives on rice, getting the little wheat necessary for the rare indulgence of pastry by coasters from the northward, so needs but the amount of two car-loads of American flour.

Foochow is closely built. Many booths have only from 12 to 20 feet frontage. From this space is begrudged the foot necessary for brick side-walls, hence the buildings are match-box-like structures of soft pine. These are crowded with big and little, all careless of fire. Conflagrations are frequent; once started for the most part stopping not until from fifty to six hundred dwellings are consumed, and the flames are checked by an engirdling fire-wall. Kerosene burned in soldered-tin lamps, as it is, has been the frequent cause of disastrous fires. Accordingly the use and sale of kerosene have been almost effectually prohibited in the city, though increasing a little in the country.

The view herewith may excuse the prohibition. So Foochow takes but a 20-foot cube of kerosene. Add seventy centals of ginseng, at $4 per pound; $25,000 worth of shell-fish, and clocks, novelties, preserved

Foochow imports but $6,000 worth of quicksilver. It consumes 52,000 centals of lead in tea-chest lining, but this does not appear to be American.

Of China's 200,000,000 pounds tea, Foochow exports the half, 100,000,000 pounds, all black tea. In 1886 exported to England 58,000,000 pounds, (increase 7,000,000) in 73 British steamers and 6 sailing vessels (one lost), all British but two, and neither of those American; to the rest of Europe, 1,000,000; to Australia, 20,000,000, in 19 British steamers (freight 27½ cents per cubic foot); Sydney taking as much as the United States, and Melbourne twice as much; to America 7,000,000 (4,000,000 Oolong, 3,000,000 Souchong).

There was an increase of 3,000,000 to America, of which 1,500,000 was increase to Canada, now taking 2,000,000 via New York in transit. This foreshadows direct trade with Canada, and her weaning from her former metropolitan source of supply, London. The remaining 1,500,000 was real increase to the United States. The certified value of the combined 7,000,000 was $1,500,000. Freight to Atlantic cities by Gibraltar, 2½ cents per pound net weight by Pacific steamer; and Pacific Railroad, 3 cents per pound gross weight. One hundred and sixty centals were tea in which jasamine blossoms had been buried, leaving their fragrance permanently with the tea. Seventeen centals were Flowery Pekoe, the first furzy-white, flower-like leaf shoots of spring. To South Africa went over 500,000 pounds in one German bark.

Foochow tea goes for the most part to England and her newer colonies, whose taste is for the fully black tea called in America Souchong. Of 102,000,000 pounds, 98,000,000 are of this and only 4,000,000 are Oolong.

To produce the Oolong the wilting process is stopped short of the reddish or dark color reached in the black tea, Souchong. The districts which twenty years ago half-wilted 12,000,000 pounds Foochow Oolong for America now wilt to redness about 8,000,000 of this for England, and half-wilt but the remaining 4,000,000 for America. For Oolongs America now depends upon Formosa. Twenty years has seen tea planting begin and thrive in moist, sub-tropical North Formosa, where constant bath of mist and shower encourages the virgin soil to push the new bushes into six flushes of leaves a year.

The Foochow export would by this time have been twice as great had not Government tax on tea, 2 cents *octroi* and 3 cents export per pound, overweighted its own patient tea growers and pickers in the competition with India. Twenty years ago India produced scarce 5,000,000 pounds; now 70,000,000. Japan, too, enters into competition, and her 46,000,000 pounds displace so much China, green and Oolong. The great Indian growth, now three-fourths as large as Foochow export, and stronger, distances Foochow tea on the London market, and leaves to Foochow, formerly so well reputed, but the rôle of supplying medium and common tea.

This Foochow could do, for in winter a pound of tea can be picked from the bushes for 2 cents, but the 2 cents octroi and 3 cents export duty, with costs of preparation, packing, and transportation would make a price which could not be recouped. But for this Foochow export

fallen so greatly, almost prohibits the export of teas below 12 cents per pound. China and India are Nevada's natural absorbents. A reversion to a 5 per cent. export duty on tea would help absorb another 10,000,000 silver a year, by promoting China's common-tea export. Silver and produce retain much the same relations as of old in China.

To pay for the tea at average 15 cents gold in China (needing $15,000,000) $8,000,000 more silver came in than went away again. These the banks sold to the merchants, who drew on their London friends bills payable four months after sight, the banks demanding for each silver dollar parted with bills for 3*s.* 3¾*d.*, May 26, but 3*s.* in early August and 3*s.* 4*d.* at Christmas, showing an extreme fluctuation of 13 cents in the price of a silver dollar. To further help balance the tea, 4,300 chests (575,000 pounds) came on from Hong-Kong out of the 10,000,000 pounds reaching that port and sold for gold $2,000,000. Most of the remaining balance to pay for the tea was found by natives who had dollars here and wished to pay debts in Shanghai, and so gave dollars and took drafts on Shanghai.

Of the 10,000,000 pounds opium reaching Hong-Kong, 7,500,000 come on and frankly pay duty at the treaty ports of entry, the other 2,500,000 disappear from farther view at Hong-Kong and its neighboring bights and bays. The Peking Government hope, by arrangements made with the Hong-Kong and Macao governments, to obtain import duty on that portion hitherto escaping observation (one-fourth of all that India sends). It has also now intrusted to its maritime customs staff of 500 Europeans and 1,500 Chinese, the collection also of the octroi of over $100 gold per chest, which means $8,000,000 more of revenue intrusted to European servants to collect.

Tea-dust exported as loose dust must pay the 3 cents silver per pound export duty; pressed into a thin brick it is taxed but ¾ cent. The tea-dust comes dry from the bin, one moment is subjected to a half minute's flash of steam on a cloth and sieve over a boiling cauldron, is shot deftly into a hard-wood mold, a tompion inserted and an intermediate cap-block added above, and then mold with tea inclosed is shoved between the solid foundation of the press and the great descending levers upon the outer end of which ten men fling themselves. Keys are swiftly driven in to keep the pressure gained, the big lever flies up, the keyed mold is slipped out, and put away. The brick is not released from the mold till the imprisoned heat has gone over to the mold faces, leaving the tea-dust content perforce with its new form.

Six million such impacts give as many bricks here, and Hankow turns out still more, and all are packed in wicker baskets, strapped with bamboo withes to stand the transit to Peking and subsequent camel-portage across the mile-high Mongolian steppe to Siberia, where the brick is pounded again into dust and infused with milk, butter, and salt, making it both food and drink. A little goes by the Amoor River to where Siberian roads begin, thence to Kiachta and steam water-

introducing steam machinery mov- the inch of un-

On September 21, 1886, arrived at the Government arsenal here from Shichau's works, Elburg, Germany, the torpedo-boat No. 60, of 45 tons burden, 44 meters long, 5 meters broad, drawing 3½ feet forward, 7¼ feet aft, with screw casing and rudder at either end, steam steering-gear, two torpedo tubes. She did 24.6 knots at trial in Germany, and over 23 after the voyage out. The engines were 1,500 indicated horse-power; consumption, 8 tons at 24 knots, 3 tons at 10 knots. Captain, mate, three engineers, four firemen, and five seamen brought her out, and the captain declared his readiness to bring another out, avoiding the typhoon months.

Of the work of the American churches in Foochow and its environs a statement of the appropriations will give a conception. Forty-five thousand dollars gold are spent by the American Board of Commissioners for Foreign Missions, $25,000 by the Missionary Society of the Methodist Episcopal Church, and $15,000 by the Woman's Foreign Missionary Society of the same denomination.

Three hospitals with dispensaries are maintained by these societies, reports of two of which I inclose.

There is besides a hospital supported almost entirely, as the mission hospitals are partly, by the foreign mercantile community. This last-named native hospital was this year destroyed by fire and $10,000 was promptly subscribed to rebuild, the contribution mainly coming from one hundred of the European community.

The year was a fairly healthful one till August, when a freshet inundated the lake-like basin in which Foochow lies. Fever of malarial and typhoid types has since prevailed, and lately an epidemic of small-pox. In an orphanage under the care of Catholic sisters, among 300 children 90 have been attacked, and 70 died, showing its virulence.

We expect in 1887 to be in telegraphic communication with North Formosa by a cable from Amoy to Tamsui.

J. P. COWLES, JR.,
Vice-Consul.

UNITED STATES CONSULATE,
Foochow, January 31, 1887.

COREA.

INTRODUCTION TO RETURNS OF TRADE AND REPORTS ON TRADE OF COREAN PORTS, 1885.

[Transmitted by Minister W. H. Parker.]

There are statistics for but one complete year with which to compare the figures showing the trade of 1885, the ports having been opened to foreign trade late in 1883. A comparison of the figures of 1885 with those for 1884 reveals a substantial gain in most of the principal imports and a large increase in the total value of the trade; and had it not been for the political troubles at the end of 1884, which caused a widespread feeling of apprehension and brought trade into a state of stagnation, from which it recovered only very slowly, the increase would doubtless have been much greater. But in spite of the fact that they show the volume of trade to have increased very considerably, the statistics for 1885 are disappointing in that they afford no signs of the development of an export trade.

With the exception of gold dust, and, perhaps, also hides, there is no article amongst the exports which appears in sufficient quantity to be classed as an export staple; and the minor articles which make up the scanty list present a pitiably small total, which would lead one to form a poor opinion of the enterprise of the people and the productive resources of the country. From this point of view the prospect for the future of the trade is not bright. The balance is immensely against us, and it is probable that the import trade will soon reach its limit unless there shall be an improvement in the export industry. The export of gold dust at Yuensan maintains the balance there, and that branch of industry might be so largely developed as to provide a purchasing medium for increasing the import trade at the other ports, if the gold mines and washings were properly developed and systematically worked on modern methods. The overland export to China of a limited amount of red ginseng accounts for a substantial portion of the difference between imports and exports as shown in the customs returns; and there can be no doubt that the smuggling of ginseng and the illicit junk traffic at the northern ports are of material benefit to the legitimate import trade, the proceeds of the sale of products thus leaving the country being converted into foreign goods, which are largely brought by steamers to the open ports of Corea.

The export of red ginseng by sea is prohibited, and only a limited quantity (about 20,000 catties) is allowed to be taken annually by the overland route to China, at great expense of transportation as compared with the sea route. As this commodity is one of the most valuable of Corean products, the removal of the prohibition on its export would at once prove of the greatest benefit to trade, through the additional purchasing power which would be gained by the consequent increase of its export and the saving of expense in transportation. Although a change in the regulations governing the trade in this commodity has been repeatedly urged upon the Government, there seems to be no immediate prospect of the present system being given up.

A common way of taxing an industry is by granting monopolies to individuals or companies, to whom the whole of certain goods named must be sold at a fixed price. For example, hides in many districts can be sold only through the hide monopolists, who deprive the producers of the profit which a free market would afford them. The government officials levy a heavy tax in one shape or another on several branches of industry that seem to possess the elements which, if encouraged or left alone, would develop a degree of prosperity and success, and help to enrich the country and increase its trade. But incentive to enterprise is wanting under this system, which permits others to appropriate nearly all the profit over the bare living expenses of the producer.

It is too much to expect that, even without these official restrictions, Corea should, [illegible] begin at once to supply the outside world with any [illegible] intercourse with other coun-

Under the most favorable circumstances it would take the people some time to become fully aware of the advantages which the opening of the country to foreign intercourse promises, and to learn that, if they would avail of these advantages, they must produce enough of the products for which their own country is best adapted to pay for the commodities which foreigners offer them. As fast as they learn and practice upon this principle (provided their enterprise is not hampered by undue restrictions), so fast will commerce increase and the condition of the people be ameliorated.

The value of foreign goods is appreciated, and the demand for them—especially for cotton piece goods, kerosene oil, dyes, and matches—is only limited by the ability to pay for them. With the exception of piece goods, foreign imports do not appear to have penetrated into the interior in any considerable quantities. Matches, aniline dyes, cotton yarn, and kerosene oil are sold at the little booths and stands which serve for shops in the streets of Seoul, in quantities suited to the finances of the purchasers. Kerosene oil is pumped from the tin directly into the lamps brought to be filled, these lamps being often aniline dye bottles, holding about half a gill, having tin burners fitted loosely on top, and being without chimneys. Matches are sold in single boxes, and even in little bunches of about a dozen matches tied round with thread. So small are the dealings amongst a people to the majority of whom a monthly income of two or three dollars is sufficient for all necessities.

After all, it must be confessed that the people are easy-going, unenterprising, and improvident, working only for the necessities of the day and returning to their pipes when those necessities are supplied, and that they do not make the best of such opportunities as they have. The country is poor in consequence, and it must take years of foreign intercourse and radical internal reforms to beget and foster a spirit of enterprise which shall remedy this condition. The resources of the country have probably been overrated, but the agricultural, grazing, mining, and home manufacturing industries might be largely developed, and a corresponding increase in the import trade would follow. By home manufacturing industries I mean the manufacture by the people at their own homes of various articles, principal amongst which are straw mats, which are made in many varieties, some of which are unexcelled in fineness of texture. It would seem as if these mats ought to form an important export, but thus far they hardly appear in the returns. Silk growing is directly encouraged and aided by the Government. Silk has never yet been produced in sufficient quantity to form any considerable export, although a great deal of native silk is consumed in Corea. A company for the growth of mulberry trees, in which the Government is largely interested, has now two extensive nurseries, in which are growing about 1,000,000 trees, the enterprise being under the superintendence of a foreign expert. Unless unforeseen accidents intervene, this industry should render substantial returns in the course of a few years.

No sudden growth in commercial prosperity can be looked for in Corea, but we may hope for that gradual and sound improvement which will follow reforms in the system of taxation, the abolition of monopolies, and the adoption of methods for encouraging existing industries and starting and fostering new ones.

H. F. MERRILL,
Chief Commissioner of Customs.

SEOUL, COREA, *May* 9, 1886.

JENCHUAN TRADE REPORT FOR THE YEAR 1885.

Jenchuan, Jinsen, or Inchun—also frequently called Chemulpo—was first opened to foreign trade on 16th June, 1883, although the customs did not come into operation until 3d November of the same year.

When Chemulpo was first constituted a port there was nothing to be seen but a few thatched hovels, less than a dozen in number, the dwellings of a handful of poor fisher folk. The port was one in name only, for of trade there was none.

The place was chosen as the site for the seaport on account of its comparative nearness to the Corean capital, Seoul or Hanyang, distant about 35 miles, which city is the center of whatever there is of wealth and tradal enterprise, so far as the central portion of the kingdom is concerned.

During the past two years and a half a township has sprung up with some 146 houses, 3 hotels, 3 consulates, 2 banks, and a telegraph station connecting it with the world. The port has a population of 725 inhabitants, comprising 573 Japanese, 130 Chinese, and 22 Europeans. The trade is carried [illegible]

the two sets of figures allowance must be made for a margin of error, as the figures given for 1885 are approximations only, the statistics for the first half of the year having been lost during the destruction of the custom-house by fire in July. Every care, however, has been taken in compiling returns for that period, and allowances made on account of possible error must have in view the fact that the approximate values given are, if anything, under rather than over the actual value, so that deductions drawn from these figures would, were the correct returns available, be more favorable than they are at present.

The total trade of 1885 was $1,159,322, as compared with a net total of $585,960 in the previous year. The following figures will better convey an idea of the improvement:

	1884.	1885.	Increase or decrease.
Imports:			
Foreign	$508,925	$995,539	+$503,263
Native	125,667	16,649	+ 29,231
		154,898	
Exports	634,592	1,167,086	+532,494
	48,632	7,764	− 40,868
Gross total trade	585,960	1,159,322	+573,362
Re-exports			
Net total trade			

The increase in the net trade of $573,362, being an advance of 97.9 per cent., is especially striking when it is remembered that during 1885 the trade and commerce of the world has suffered from severe depression.

During the whole of the year traders in Corea have had to struggle against various circumstances, causing a feeling of considerable distrust, so that business transactions have been difficult, although they have for the most part been conducted on a very sound basis, partaking largely as they did of a hand-to-mouth character.

At the commencement of the year gloomy forebodings as to the prospects of Corean trade and affairs generally were entertained, but although home and foreign politics have been actively prominent and seriously affected trade during the earlier half of the year, it is a matter for congratulation that the state of affairs, commercial and otherwise, in this kingdom has not been so somber as the disastrous close of 1884 foreshadowed. The volume of trade has, despite various hindrances and drawbacks, steadily expanded in so noteworthy a degree that net imports have risen from $460,293 in 1884 to $1,004,424, or 118 per cent.; and that whilst re-exports have fallen 84 per cent., dropping from $48,632 to $7,764, exports have advanced rather more than 23 per cent., rising from $125,667 to $154,898.

These increases are not due to any sudden fall in the prices of commodities, enabling more people to buy, for in this market the prices have ruled slightly higher than in the previous year; but are the direct outcome of a genuine expansion of legitimate trade.

This satisfactory result is attributable in a large degree to the keen business instincts of the Japanese, which led them, when they found little or no demand except for small parcels of piece goods, to try and force a market for foreign commodities by persistently bringing small shipments of various articles, in the hope of creating a demand, in which they have been very successful.

The greater portion of the trade of the port, about 75 per cent., is in the hands of the enterprising Japanese merchants.

Although the trade is almost entirely in the hands of Japanese and Chinese, it is noteworthy that the bulk of imports is the product of British industries.

SHIPPING.

The total tonnage which came under the cognizance of the customs during the year amounted to 28,648 tons. Of this amount 22,989 tons were steamer tonnage, [illegible] accounted for by junks, and sailing vessels of for-

[illegible] 194 in all.

REVENUE.

The gross revenue collected at this port by the customs during the year now under review amounted to Mexican $79,434.61, as against Mexican $50,117.76 in the previous year.

The figures given for 1884 may be taken as substantially correct, but are open to a small margin of error, owing to nearly half the duties having during that year been collected in copper cash.

The gross revenue for the past year thus shows an increase of 58 per cent. over that of the previous 12 months. The increase seems less than that warranted by the large addition to the total trade, but the apparent shortcoming is due to the fact that during the early part of 1884 the merchandise imported by the Japanese paid duty according to the tariff of the Japanese treaty. The duties leviable under that treaty were in the main higher than those provided for by the British treaty, and it was not until the most-favored-nation clause was conceded to Japan that the present scale of duties came fully into force.

IMPORTS.

The net trade in imports amounted to $1,004,424, as compared with $460,293 in 1884 so that not only did the net import trade of this port increase by 118 per cent. over the net value of imports for 1884, but it has gained nearly 12 per cent. on the total net value of the imports into Corea at the three open ports, which in 1884 amounted to $897,643.

Part of this increase is due to competition between rival steamers and between the Chinese and Japanese merchants, which has a cheapening influence on the selling price at this port of foreign imports, but mostly it is due to a genuine increase of the demand for foreign commodities.

The bad harvest of the past year, when a period of comparative drought was succeeded by another of excessive rain, can only have impaired this branch of trade, as it lowered the purchasing power of the people. It has, however, led to an undue inflation of certain imports, especially raw cotton.

The import trade depends on articles that are not luxuries to the mass of the people, but for which there is a constant consumptive demand. Amongst the staple articles of import some items exhibit a marked decrease.

In cotton goods, Victoria lawns, the import of which in 1884 amounted to $90,803, underwent a heavy decline, amounting only to $48,343 in 1885. This decided fall is due in a measure to the market having been overstocked in the previous season, and partly to the coolness of the past summer; but is mainly to be accounted for by the fact that this fabric is of too poor and flimsy a character to be suitable to the needs of the people. They found it unprofitable on account of its inability to stand wear and tear and frequent washing. These remarks also account for the fall of striped lenos from $21,375 in 1884 to $14,572 in the past 12 months.

The value of lamps imported has also decreased, owing to their extensive manufacture in this country.

There is a slight decline in the import of matches, due probably to the sale of the product of the Corean match factory near Seoul. The matches imported are principally of the best Austrian manufacture. Bryant & May's wax vestas in small tin boxes were first imported to the extent of $767, and will probably increase, as the Coreans have a preference for these handy articles.

Rattan, which is extensively used for the manufacture of a kind of undershirt, made of large rings interlaced, and of rattan cuffs, which serve the double purpose of conducing to the coolness and cleanliness of the wearer in hot weather, has fallen from $1,732 to $227.

Amongst metals the chief articles of interest are lead, spelter, and copper. The quantities of these metals imported in 1883 and the early part of 1884 were far in excess of all requirements, and represent the supply to meet an extraordinary and unnatural demand beyond the necessities of legitimate trade.

Lead, as an article of import, almost disappeared from our returns during the past year, only one importation of $26 having passed the customs. This is mostly attributable to the excessive imports of 1883 having thoroughly overstocked the market, so that since there has been a steady re-export of this metal, which, as large stocks were unsold at the commencement of the year, will probably still continue.

Spelter has also sustained a heavy decline, falling from $12,568 to $5,579. The demand for this metal was to a great extent dependent on the activity of the various

The import of iron will probably never be large, as an excellent quality is produced in the two northern provinces, as well as in Chullado.

The decreases in the above items have, however, been more than counterbalanced by the substantial advances made by other commodities.

Among cotton goods, gray shirtings show for the year an import of $546,258, as against $180,442 in 1884; representing an increase of 202½ per cent.

Only the best qualities of these cloths find a ready and regular market, although small parcels of inferior grades can occasionally be sold. The shirtings most suitable to this district are not less than from 10 to 10½ pounds, and those cloths which contain the least sizing are chiefly in demand, although American shirtings have no market.

That such heavy cloths are required for this port is to be accounted for by the excellent quality of the native cloth, which is better and more durable than most shirtings. The ratio which the price of good native cloth equal in quantity to a piece of 10½-pound shirtings bears to the price of the foreign cloth is as 20 to 13.

Judging from the quality and price of the samples of native cloth I have seen, there should be an opening for cheap linen and good cotton goods, such as sheetings, duck, drills, cotton unions, and others that are stout and strong and will keep a good appearance after having passed the somewhat severe discipline of Corean washing.

The import of raw cotton increased from $1,277 to $18,672, but this was due to unhealthy speculation. The quantity imported, especially of inferior grades, was largely in excess of the demand, and only the best qualities found a market. The speculation was owing to the cotton crop being generally bad, and almost entirely failing in the neighboring province of Whanghaido. There are considerable quantities of cotton still in stock, and the re-export of this surplus will probably be brisk during the present year.

Corea produces cotton of a superior staple in considerable quantities, especially in the provinces of Chullado, Whanghaido, and Pingando. The crop is largely consumed in the country in the manufacture of the strong and excellent native homespun, but I am assured by the native merchants that there must be a considerable margin for export. It is, however, a suggestive fact that although cotton as a raw staple always commands a ready sale and maintains a high market value, even when the products manufactured from it may be cheap, only a few small parcels of Corean cotton have ever passed the customs, and these, too, of an inferior quality. That the unconsumed remainder does, however, leave the country by some outlet is certain, as Corean cotton is purchasable in China and Japan, its quality being such that it is sought for and realizes higher rates than the Chinese or the Japanese article.

Japanese piece goods form a new article of import. They meet a demand for cheap and stout clothing, and have reached a total of 16,123 pieces, valued at $8,627.

Foreign dyes are evidently making a favorable reception for themselves, the import for the past year having been $25,701, as against $11,564 in the preceding year. A larger consumption of the better dyes may be expected. The dyes imported are mostly aniline; the colors favored being dark and light blues, scarlet, pink, lavender, violet, and green.

Needles of European manufacture have found a ready and increasing sale. There were imported during the last year 18,878 mille, valued at $4,441.

Window glass has not made the rapid progress expected, showing only an advance of $514 during the year.

The import of silk piece goods has increased 88 per cent., there having been imported 13,208 pieces, worth $49,076, as against only 8,428 pieces, valued at $26,037 in 1884.

Blankets are slowly but steadily advancing in favor, the import, small as it is, having nearly doubled itself during the year. Blankets to command a sale in this market should be cheap, but warm and heavy. The substantial cotton quilts in general use, and the universal native custom of sleeping on heated *k'ang* floors, doubtless militate against a rapid increase in the sale of blankets.

Whole pepper used with the red pepper in the preparation of food, and largely taken on account of its peculiar properties as a stimulant, has risen from $1,836 to $2,198.

Kerosene oil has found a ready market, the import having increased by 291 per cent. [illegible] which only showed a total of 42,580 gallons, valued [illegible] during the year now [illegible]

An increase of $26,361 has also taken place in the value of the import of cigars, cotton lastings, nankeens, cotton thread, cotton wadding, cotton yarn, malt liquors, soap, flannels, woolen lastings, Russian cloth, provisions, saki and samshu, and sugar.

An addition of $11,576 is also due to the importation, for the first time, of alpaca, sheeting, woolen camlets and orleans, tin, licorice, and jewelry.

EXPORTS.

The total exports during the past year amounted to $154,898. The list of exports is small and confined to a few items. This is accounted for by the limited area from which by far the greater part of the exports is drawn.

The export of beans has almost collapsed, having fallen from 35,743 piculs in 1884 to 1,730 piculs in 1885. A large portion of this decrease is due to the bad harvest, but a part is due to the junk trade with Whanghaido providing a direct outlet for the surplus stock.

Bicho do mar has dropped from $3,585 to $461; nutgalls from $2,735 to $431, whilst the export of cotton and paper has entirely ceased.

The export of silk has practically remained stationary. The small amount exported is no criterion of the amount produced. The silk sent away from this port is of two kinds, yellow and white. The white is produced in the province of Kingsangdo in considerable quantities. The yellow is somewhat coarsely reeled, but parcels of it that have found their way via Japan to Lyons are said by the silk men there to be of a superior quality, and they are of opinion that if Corea produces it in any quantity she will, on the introduction of improved methods of reeling, be one of the richest silk-producing countries.

The export of rice, despite the comparative failure of the crop, increased from 744 piculs to 3,383 piculs. Corean rice always commands a ready sale, being superior in some respects to that of China or Japan.

The exportation of hides has increased remarkably, having risen from $60,951 to $132,583. The advance took place in the second half of the year, business in hides being very brisk consequent on an increase in the consumptive demand in the London market, whither they are shipped from Japan.

DRAWBACKS TO TRADE.

The trade of this port is hampered by many difficulties. The high cost of and the difficulty attending transport, which is at present carried on by bulls and pack-ponies, have a very deterrent influence on the expansion of trade. The mode of transit is not only slow and extremely uncertain, but it is so expensive that it limits the consumption of the imports of this port to the comparatively small radius of 40 English miles, and prevents districts more remote from sending their surplus stock of hides, silk, beans, cotton, millet, rice, &c., hither for export. The transport of goods from this port to Seoul by the cheapest means costs at least $3.50 per ton. The consequence is that an artificial boundary is created, beyond the limits of which but very small parcels of commodities find their way, so that the rich northwestern province cannot be supplied with foreign goods through legitimate trade, and its resources find an outlet by illicit channels, without the people or Government deriving those benefits which would accrue from a port being thrown open to commerce, with its healthy competition.

Another serious evil is constituted by the unceasing and often violent fluctuation in rates of exchange for cash. The exchange of this port will not infrequently show a variation in a few days of from 6½ to 33½ per cent. The constantly varying value of this currency has a very detrimental influence on trade. The rates of exchange are manipulated by the merchants, and, as a consequence, the Coreans have to bear the evils produced by a rapidly-fluctuating currency, which necessarily causes great irregularities in the prices demanded from buyers and serious inconvenience to them, although the market value of the goods in silver is unchanged. The financial trouble thus produced limits the purchasing power of the community and cripples trade.

The number of spurious Mexican dollars in circulation here is great. The counterfeit dollar is in many cases difficult to detect, owing to the rude workmanship of the original and the skill of the forgers. The Japanese yen is, however, seldom counterfeited, apparently on account of its careful and beautifully finished execution. The new mint when once established and issuing the new coinage, based on and similar to the Japanese coinage, should prove a great boon to Corean trade and eradicate the above evils.

The want of a good jetty and the remoteness of the port from the centers of consumption are also to be deplored.

The extreme irregularity in the means of communication with other ports, or, in other words, the uncertainty as to the arrival and departure of steamers; the excessive, one might almost say exorbitant, freight rates hitherto charged; and the absence of means of overland intercommunication between centers of consumption and supply, are also serious hindrances to an expansion of trade.

THE IMPROVEMENT OF TRADE AND REVENUE.

The undervaluation of imports operates injuriously, in that it defrauds the revenue and renders competition in business often difficult. Appraisement by the customs bristles with difficulties even when aided by market reports, prices current, and samples of goods; and is nearly always unsatisfactory in its results, as the importer has the right of having his goods reappraised by an interested person, and then compelling the customs either to pass the goods at the reappraised valuation or to buy them in with the addition of 5 per cent. This purchase does not materially improve matters, as in small communities there is a difficulty in finding a purchaser for the goods. At present the revenue sustains loss by the declaration of low values and the production of bogus invoices, encouraged by the ad valorem system of levying duties. The change to a specific tariff would abolish this evil, would greatly facilitate and simplify customs work and the clearing of cargo, would do away with much unpleasantness and irritation consequent on disputes as to the value of commodities, and would favor the import of superior as against inferior qualities of goods, at the same time putting all merchants on a common footing.

This change, especially if carried out with a view of moderately reducing some of the heavier duties, would doubtless be beneficial to the revenue and afford a healthy impetus to trade.

If commerce is to flourish, especially the export branch, the spirit and letter of the treaty should be strictly enforced, and the various restrictions on inland and even coast trade at present existing should be abolished.

To aid the development of trade it is necessary to improve and increase the means of transport and communication, making both easier, cheaper, and certain in regularity, between the open and coast ports and the centers of consumption. This is to be effected mainly by permitting the traffic of large launches on the rivers, and by the use of small steamers, or fast lorchas, for the coast trade. By these means the cost of transport would be reduced to a fraction, the ultimate selling price of articles would be materially cheapened, whilst the work of distributing imports and of collecting exports at paying rates would be effectively carried out. The immediate result would probably be a considerable increase of imports, and that great desideratum, a large expansion of the trade in exports.

A tramway or railway between our port and Mapo, which presents no engineering difficulties, and might be laid down at a comparatively small cost, would be of great advantage to the tradal interests of this portion of Corea.

The deepening of the inner harbor by means of a powerful dredger, so as to enable vessels drawing 16 feet to anchor within a few hundred yards of the jetty, is to be desired. The material dredged up could be utilized for filling up the fore shore from the present jetty to Station Island, and as the ground thus reclaimed would add to the healthiness of the settlement, and would afford the most valuable building sites, its sale would partially recoup the Government for the cost of dredging, whilst the bund could be used for wharves.

THE OPENING OF NEW PORTS.

Since the difficulty of transportation, coastwise or inland, is one of the most serious obstacles to the growth of trade in Corea, it seems probable that the opening of more ports to foreign shipping would, by increasing the number of distributing centers and providing facilities for landing foreign goods nearer to the consumers, have the effect [illegible] trade. The ports which would seem to offer the best facilities [illegible] the north, and Mokpo in Chullado [illegible] of the best

Fusan Trade Report for the year 1885.

THE HARVEST.

The spring and autumn harvests were partial failures, the former from excessive ains when the wheat and barley were being secured, the latter from storms, rains, and insects destroying morethan half the rice-fields just at the time when the grain was ripening. The trade follows the harvest everywhere, but more especially so in Corea.

SHIPPING.

The increase of steamer tonnage is due to the fact that the Japanese mail company have run the Vladivostock steamer once every three weeks, instead of once every five weeks, and the steamer from Nagasaki to Jenchuan once a fortnight, instead of, as formerly, once a month from Kobe via Nagasaki.

The Hiogo Maru has taken the place of the Tsuruga Maru on the northern line, and the Mino Maru the place of the Seirio Maru on the Fusan-Jenchuan line, the new steamers on these lines being of larger tonnage and more suitable for the trade. The German steamer Hever called here three times *en route* to Jenchuan, but finally abandoned this portion of the route as unsatisfactory.

There has been a great falling off in the number of Japanese schooners visiting the port, especially during the latter half of the year. This is attributable to the decline in the export of beans, seaweed, and nutgalls, articles requiring cheap transport.

The junk trade is about the same, entirely Japanese, bringing wood, charcoal, and sweet potatoes from the island of Tsushima.

IMPORTS.

Cotton piece goods show a considerable increase over last year; this is accounted for by the failure of the cotton crop. In gray shirtings the increase amounts to 20,000 pieces over the preceding year, and in the other items of cotton manufacture there is a slight increase. The port supplies this province and the neighboring province of Chullado with piece goods, the demand for which would have been larger still but for the operation of the tax upon hides, as described below, thus contracting the purchasing power of the native merchants. The red shirtings are used mostly for the undergarments of the women and the uniforms of the soldiers connected with the yamêns.

There was a falling off in Victoria lawns—used especially in making the outer garments of men and women—which arose from the enhanced prices and more limited means.

The increasing demand for cotton yarn and thread is owing to the gradual giving up of the cultivation of cotton, a precarious crop at all times, but especially so in this wind-swept peninsula.

Woolen goods.—These are decidedly expensive articles to the Coreans, and it will probably be some time before there is much demand for them. The Coreans are very fond of blankets, which will form an increasing item of the trade of the port in the near future.

Camlets, it will be observed, figure as a distinct item for the first time in the trade returns.

Metals.—The quantity imported is less than in the preceding year, a good portion remaining on hand when the new year opened. The import of metals here is not likely to increase soon, the dealers from the capital preferring to purchase at Jenchuan. The serious falling off is in white metal, which supplied the local industry at the district city, Tongnaipoo, celebrated for the manufacture of pipe-heads and mouth-pieces, also metal bowls. A good many of the local workmen have recently left for the capital, hoping to find more regular employment there than the small district city afforded. The copper imported has usually been on Government account. A small quantity of sheets and slabs was, however, sold here; but lately there has been no demand.

Sundries.—Matches are of Japanese manufacture, and until recently have been of the poorest description. Now a new match has been introduced by some Japanese merchants, which sells fairly well. A large stock is on hand and stored in the godowns of the settlement.

There has not been the same demand for aniline dyes as there was in the previous year, owing, I presume, to our bad harvest; but should the

country are more than enough to kill it. That it survives and in fruitful years flourishes, shows the tenacious desire of the people to engage in trade, and how profitable to the people and beneficial to the country the trade would become if it were relieved from monopolies and other disadvantages.

Cow hides.—During the first half of the year a good many hides were brought in, but later it was found that the war department had issued instructions, levying on each city, according to its rank and population, a tax of hides varying from three to fifteen, payable monthly to the local officials, which, however, did not much interfere with the number for sale until towards the close of the year, when the special officials appointed to collect them found that only the smallest and poorest hides were brought to them in payment of the tax; consequently these officers have placed guards on the principal roads and boats at several points in the harbor to stop the hides coming to market unless certain taxes are paid. The result is that few, if any, are now brought in and put upon the market. The number of hides for sale must always be limited and will vary little from year to year, as the cattle are killed for beef solely.

The Japanese merchants here are thus greatly inconvenienced, for it is by the purchase of hides with the copper cash received in payment for piece goods that they have hitherto made remittances to their principals in Japan.

Beans.—The export of beans in the first half of the year was from the surplus crop of the previous year. The yield in 1885 was a poor one, the crop having suffered from the depredations of a worm; and owing to the scarcity of rice, all cargoes of beans arriving by the Naktong River were stopped, and the export prohibited.

Nutgalls.—The excessive rains of summer destroyed all prospect of a crop. This is the second year of failure in a crop that promised in 1883 to become an important article of local export.

Raw silk.—When raw silk in Japan commands a high price, Corean silk is purchased by resident merchants and shipped to Japan. Corean raw silk is not appreciated in Japan; it is unevenly twisted, soft, and quickly wears out. During the year little was exported.

Gold and gold dust.—About 5 miles from Masanpoo alluvial gold is found in a small valley. Shaft-like wells are sunk from 15 to 25 feet, and the earth thus extracted is washed at a small rivulet by women, who pick out the specks of gold found therein. When the water finds its way into these shafts and can no longer be bailed out, the shaft is abandoned and a new one sunk. These alluvial gold washings have been carried on hitherto by a Corean company of small capitalists, who employ, when they have cash, about 60 men and 300 women. The gold thus obtained has usually found its way into the settlement in payment for many articles.

Last year an official at the capital paid into the yamên which has the supervision of mines a large sum in copper cash, for the right to all the gold found in the valley alluded to; and since his arrival the wages for digging and washing the earth have been reduced; consequently little gold has been forthcoming, and none of late has been brought in for sale.

Copper ore is also found close to this valley, and Mr. Umaki, a Japanese merchant of enterprise and capital, is trying to develop the workings, having erected a small smelting furnace adjoining the settlement; but he greatly complains of the want of energy in the people of the valley.

FISHERIES.

The fishing season is, I regret to say, again a failure. The long ribbon-like fish, so popular amongst the Coreans, appears for the second season in succession to have deserted the coasts, which this year is all the more keenly felt owing to the deficient harvest.

The season for these fish begins in the tenth month and lasts until the end of the second month; when the catch is good, the fish are slightly salted and sent to all the inland markets within three or four days' journey of the coast, giving profitable employment to quite a large number of people. This is a branch of industry that might be extended, and where judicious government assistance might be well [illegible] better description of sea-boat and sup-

REVENUE.

The revenue for the year shows a considerable increase over that of the previous year, more so than a comparison of the figures in the tables will prove. The revenue for 1884 was collected in copper cash and converted into dollars at 500 cash to the dollar; but that of the year now being reviewed was collected in hard coin, and is in reality about $8,000 over that of 1884.

A careful comparison of the tables given in the annual returns will show that the imports have increased considerably over those of the previous year, while the exports have fallen off, which has already been accounted for; but on the whole the revenue has increased, and with a good year's harvest we may look forward to a largely increased trade in the fall of the present year.

SUGGESTIONS FOR THE IMPROVEMENT OF TRADE.

First. The total abolition of all monopolies.

Second. No tax of any kind or description to be levied inland on produce on any ground whatever. This is but reasonable, considering that the government receives through the foreign collectorate a very substantial revenue, to which before the opening of the country it was an entire stranger.

I may here mention that the taxes collected by the customs are neither oppressive nor inconvenient to the people.

Third. A license to be issued by royal authority to any one applying for it, to search for and work any minerals or treasures. When found, a royalty may be afterwards fixed upon.

Fourth. Freedom for the people to leave the kingdom and to return to it without let or hindrance.

I feel confident that if it is found possible to carry these suggestions into effect the eager desire to trade, which is so strong a characteristic of the Coreans, will be sufficient to develop fully the present resources of the country.

The quantity of arable land in Corea is very limited, and we cannot look for it to produce much more than the food necessary for the people; therefore the raw material of articles of a commercial value is not to be expected.

In the mineral resources of the country we may, however, confidently hope to find those articles of value to the world at large that will bring in exchange for them the riches and comforts of other countries, and so increase the happiness and prosperity of the people among whom we live.

GENERAL REMARKS.

The Japanese chamber of commerce sent a deputation with a large assortment of goods, mostly of Japanese manufacture, to visit the great fair held at Thaiku, the provincial capital, during the tenth moon. The reception and treatment of the deputation was not of such a nature as to lead to another being sent, and in a commercial point of view it turned out a serious loss to the merchants interested.

CLIMATE AND HEALTH.

During the past summer the weather was very changeable; consequently the general health of the residents was not so good as in previous years. In September there was a sudden outbreak of dysentery, when from thirty to forty Japanese were attacked, amongst whom six deaths occurred. At this time cholera was very prevalent in Nagasaki. The Japanese consul-general carried the instructions of his government into effect. All passengers arriving here were medically inspected and bathed, and their clothes were fumigated. The steamers and the cargoes brought by them were also fumigated, and occasionally kept in quarantine.

One decided case of cholera occurred in October. A Japanese passenger from Nagasaki landed here, supposed to be suffering from sea-sickness, went to the house of a friend for rest, when, the sickness continuing, the doctor was sent for, who at once pronounced it cholera, and had the patient removed to the cholera hospital, where he died in a few hours. The precautions of two months failed at almost the last moment to keep out the disease. I am pleased to state that this was the only case in Fusan. The Coreans in the surrounding villages were remarkably healthy.

YUENSAN TRADE REPORT FOR THE YEAR 1885.

The commercial year opened at this port, after a closed season of two months, on the 23d February, with the arrival of a Japanese schooner. The first steamer—the Japanese-mail boat, Tsuruga Maru—arrived on the 26th February, and the season terminated on the 26th December with the departure of the mail steamer Hiogo Maru. A Japanese gun-boat remained in the harbor throughout the winter, in anticipation of troubles which were expected; but the winter passed over without any disturbance as far as this port was concerned. Small quantities of floating ice were constantly to be seen in the harbor, and the southern corner was frozen up till the latter end of February, but at no time was there sufficient ice at or near the anchorage to interfere with shipping. After February, and to the end of the year, no ice whatever appeared in the harbor.

This port was opened to Japanese trade in May, 1880, but the custom-house was not established till November, 1883; it is therefore only over the period from the latter date that the customs statistics of trade extend.

The principal part of the trade in 1885 has been carried on by a Japanese mail steamer which called here from Japan, *en route* for Vladivostock, once every three weeks, and again on her return for export cargo; she entered twenty-seven times during the eleven months. Four steamers under the German flag and one under the British, engaged in carrying rice, go to make the total of 32 steamers, with a tonnage of 19,626, against 22, with a tonnage of 11,374, in 1884.

Of sailing vessels, consisting of Japanese schooners and junks, 13 have entered and cleared, with a tonnage of 1,000, against 12 in 1884, with a tonnage of 1,027.

The net value of the trade for the year is Mexican $564,052, an increase of Mexican $306,132 over the previous year. This remarkable increase comes entirely from the imports, foreign and native. Exports to foreign countries show a falling off. The gain in imports is the more satisfactory when one notes the adverse circumstances that have had to be contended with, in the shape of a failure in the rice crop in 1884, and a short yield during this year. Whilst the imported rice goes to swell the returns to a great extent, it will be noticed that articles of ordinary commerce also show a very substantial advance on the previous year. The improvement is due entirely to the more plentiful supply of gold; and although it does not appear in the returns as an addition to the value of trade, it is nevertheless to a certain extent a trading commodity, inasmuch as it is not a mere purchasing medium, or specie, but is sold and bartered at fluctuating prices, which generally leave a margin for small profits in passing from the hands of the exporter to the mint. The import trade is manifestly ruled by the outturn of the washings in this neighborhood. The quantity exported during the year is valued at $357,150, which is three times as much as went away in 1880. Of this amount, $272,315 were sent to Japan, $46,100 to China, and $38,735 to Fusan.

IMPORTS.

The net value of the imports from foreign countries is $375,673, against $151,738 in 1884, and the value of imported foreign goods actually retained in the port, after deducting the re-exports to native ports, is $372,200. Gray shirtings, as usual, take the first place in the returns of imports, and show a substantial advance over last year, with 69,735 pieces, valued at $199,618, against 24,344 pieces, valued at $73,487, in 1884. The average value of $2.86 per piece this year shows a falling off of 15 cents per piece on the value passed at this office in 1884; this is accounted for by the fact that new brands have been imported of slightly inferior quality, for the purpose of obtaining better profit. The old brands were sold at very low prices during the bad season, and being well known, it was difficult to get an advance on the reduced prices. Only a very small decline in the best goods has taken place. American shirtings were imported by the last steamers, and, I am told, went very well, after the first sales were made; and orders have been sent for more to arrive by the first steamer of the current year.

Victoria lawns show a slight advance over the returns for 1884, the import being [illegible] at $31,010, against 43,700 pieces, valued at $27,975. This trade [illegible] is proved by the fact that so many [illegible] 860 pieces were

tent of 3,418 piculs, valued at $5,960. Of rice, 45,789 piculs, valued at $100,475, were imported from foreign countries, against 2,890 piculs, valued at $7,667, last year, besides 22,769 piculs from the native ports; making a total import for 1885 of 68,558 piculs, valued at $158,957. This advance cannot be considered a matter for congratulation, and indeed the circumstances which rendered the large import necessary were to a great extent the means of reducing the value of the trade. Owing to the bad harvest in 1884, rice was imported late in that year and early in 1885 from Japan and Fusan. In May and June Japanese rice was sold for $5 per 100 catties. A German steamer arrived on the 18th June with a cargo of rice from Shanghai, and, although this was of an inferior quality, it was taken up rapidly at an average of $4.75 per bag of 145 catties. This steamer was followed by the German steamers Hever and Activa and the British steamship Ashington, with similar cargoes. From October to the end of the year rice was sold at $3 per picul for inferior and $3.50 for the best.

Of Japanese silk, dyed kaiki (lustring) shows an advance on last year, and finds a ready sale amongst the native ladies for their short jackets.

Kerosene oil shows a slight advance on last year, but is still a small import.

Matches of Japanese manufacture are imported, but are a small item, and are wretchedly bad.

Sulphur has advanced from 40 piculs in 1884 to 238 piculs this year.

EXPORTS.

Exports to foreign countries during the year are valued at $53,835, against $62,168 for last year, a falling of about 13½ per cent. This decrease is fully accounted for by the absence of cereals in the list of exports for 1885.

Beans, which have been a fairly large export since the opening of the port, and were sent away to the extent of 18,670 piculs in 1884, have been required for home consumption, and have not been exported during this year.

Cow hides have made good progress. The exports have reached 3,790 piculs, valued at $50,539, against 2,350 piculs, valued at $28,745, in 1884. This increase is the more significant when it is taken into consideration that there was no export during September, October, and November, on account of a disease amongst the cattle; but whether this disease was of an epidemic character is uncertain; however, it disappeared in December, and the trade went on as usual.

Dried fish was exported to Japan in 1884 to the extent of 5,786 piculs, against 494 piculs this year. Yuensan is essentially a fish-exporting port. The fish sent to Japan is a kind of sardine, which is dried and used for manure; it is netted in the harbor.

Musk has only been exported to the extent of 20 catties, against twice that quantity in 1884.

NATIVE IMPORTS AND EXPORTS.

The native produce imported during the year is valued at $75,780, and consists chiefly of rice and grain. The value of the produce exported to native ports is $62,247, which consists of dried fish, $27,891; grass cloth, $6,329; copper ore, $22,650. Cow hides were also shipped to Fusan, but were, presumably, for reshipment to a foreign country.

The carrying trade between this port and Fusan is greatly increasing, natives fully recognizing the advantages offered by steamers over their own craft.

Formerly a native junk was loaded up here, and started on a voyage to the south, and if she did not get lost and met with good luck, she might arrive back in the course of six months, with a cargo of some commodity that had been urgently required here at the time of her departure, but the demand for which had ceased in the mean time. Now, however, that a steamer service is available, produce can be shipped and the return cargo (if ready) received back within two weeks.

REVENUE.

The net revenue is $24,032.14, against $14,196.30 in 1884. There is a falling off of about $300 in the collection from exports, and an increase of $470 in tonnage dues, but the main increase is from the imports. This large advance has taken place in a year when the native products have been insufficient to supply the needs of the people; but it has not been derived from the increased importation of

snow storm; and from that time to the 18th May the season continued dry, when rain was most wanted for flooding the paddy fields and watering the nurseries. The consequence was that when the rain at length came no land was ready, it having been too hard for tilling; wherefore most of the rice was transplanted late. Thereafter seasonable weather prevailed till 19th July, when a most terrific gale of wind and rain, lasting for about 24 hours, visited the neighborhood; rivers overflowed, washing away all the bridges, flooding the flats for miles, and damaging the wheat crops. This was followed by an exact counterpart eight days after, completing the ruin that had been begun. After this heavy rains fell, with occasional blows. The panicum, millet, and bean crops had recovered themselves (except in places where they had been washed away) and were doing wonderfully well, so that there was, at least, a prospect of an abundant harvest of these. On the 5th September, however, we were again visited by a gale more severe than the two preceding ones, during which the flats became flooded with salt water, and the nearly ripe panicum, the chief and an unusually large crop, was washed out to the extent of at least two-thirds. There remained the rice crop, which at this time was looking tolerably well, to depend on to stave off famine for another year, and nothing but warm weather was wanted to ripen it; but the weather set in cold, and continued so for some time, till it seemed quite a chance whether the crop would not be a failure. Providentially, the warmth came, and a three-fourths' crop was the result.

THE IMPROVEMENT OF TRADE AND REVENUE.

One of the great drawbacks to the more rapid increase of commerce at this port is the monopoly of the natural product ginseng, and the limitations placed on its cultivation; and I feel sure that if the growing of it were more largely carried on and some of the present restrictions on the trade removed, so that ginseng might be dealt in openly, the result would be a great improvement in the general trade, by an influx of Chinese merchants to participate in it. During the three years the port was open before the customs was established, an annual export of about 2,000 catties took place; also, it left the country as at present via the Russian frontier, where it passes into the hands of Chinese, who deal in nothing besides deer horns and ginseng, which are shipped from Vladivostock. In this neighborhood there are thousands of able-bodied men who follow agricultural pursuits, and whose labor only requires one-eighth of the time at their disposal, who might be profitably employed in its cultivation. Seeing the high price which first quality Corean ginseng always commands *in* China, a high specific duty could be levied, and in time, I am convinced, it would become not only an important item in the returns of trade, but also a very valuable contribution to the revenue.

T. W. WRIGHT,
Commissioner of Customs.

YUENSAN, *January* 28, 1886

JAPAN.

Report of Minister Hubbard.

TRADE OF JAPAN IN 1886.

I transmit herewith the annual return of the foreign trade of the Empire of Japan for 1886. The total value of Japan's export trade for the year was 48,870,471 yen, and the total value of her import trade for the same period was 32,168,432 yen, being a total of import and export trade for the year of 81,038,903 yen, which is an increase of 16,601,510 yen over the total trade of 1885. The excess of export over import trade for the year under consideration was 16,702,039 yen. The following table shows a comparative statement of the total export and import trade for 1885 and 1886 between Japan and some of the principal commercial countries. The values in this table as well as all values in this dispatch are expressed in Japanese yen.

Countries.	1885.	1886.	Gain.
	Yen.	*Yen.*	*Yen.*
United States and Canada	18, 340, 052	23, 347, 202	5, 007, 150
France	8, 065, 777	10, 963, 815	2, 898, 036
China	13, 418, 518	16, 718, 758	3, 300, 240
Great Britain	14, 827, 399	16, 898, 603	2, 071, 204
Germany	2, 129, 585	3, 178, 117	1, 048, 532
Corea	469, 114	1, 392, 763	923, 640
East Indies and Siam	3, 889, 047	4, 210, 462	321, 415
Australia	355, 556	550, 379	194, 823

Exports from Japan to some of the principal commercial countries for 1885 *and* 1886.

Countries.	1885.	1886.	Gain.
	Yen.	*Yen.*	*Yen.*
United States and Canada	15, 613, 868	19, 988, 216	4, 374, 348
France	6, 735, 911	9, 632, 902	2, 896, 991
Great Britain	2, 411, 978	4, 195, 355	1, 783, 377
Germany	493, 333	864, 458	371, 125
East Indies and Siam	492, 083	649, 143	157, 060
Italy	120, 593	181, 200	60, 607
China	7, 655, 468	9, 594, 907	1, 939, 439
Australia	284, 235	469, 914	185, 679
Corea	229, 600	829, 316	599, 716
Russia	246, 291	231, 695	−14, 596
Austria	24, 607	156, 315	131, 708

Imports into Japan for 1885 *and* 1886 *from some of the principal commercial countries.*

Countries.	1885.	1886.	Gain.
	Yen.	*Yen.*	*Yen.*
Great Britain	12, 415, 421	12, 703, 248	287, 827
China	5, 763, 050	7, 123, 851	1, 360, 801
East Indies and Siam	3, 396, 964	3, 561, 319	164, 355
United States and Canada			

Of Japan's nearly 49,000,000 yen in value of exports it is interesting to note that the following twenty-seven articles form over 45,000,000 yen:

Articles.	Value.	Articles.	Value.
	Yen.		*Yen.*
Silk, all kinds	21,070,636	Fans	195,144
Tea, all kinds	7,723,320	Matches	378,017
Rice	3,300,599	Screens	193,124
Coal, including for ship use	2,208,548	Bamboo ware	191,271
Fish, including shell-fish	1,819,905	Bronzes	193,231
Porcelain	1,002,384	Hides and skins	216,852
Copper	2,130,880	Wheat	231,078
Camphor	928,027	Mushrooms	437,397
Lacquered ware	589,169	Kanten	392,664
Sea-weed	598,414	Bêche de mer	196,425
Straw ware	179,618	Peppermint oil	63,206
Cotton piece goods	229,665	Sulphur	72,938
Tobacco	126,612	Antimony	154,318
Rags	175,718		

The foregoing list includes only Japanese productions and manufactures. Re-exported foreign commodities have been omitted from it.

Of the 32,000,000 yen of Japan's import from foreign countries the following twenty-eight articles compose over 30,000,000 yen:

Articles.	Value.	Articles.	Value.
	Yen.		*Yen.*
Wools, woolen yarns, blankets, buntings, and other woolen goods	3,565,871	Iron--pig, bar, railroad, plate, and sheet	206,579
Kerosene oil	2,358,497	Steel and steel ware	2,079,233
Sugar	5,557,012	Other metal manufactures	568,511
Cotton yarns	5,905,457	Raw cotton	618,429
Hair, horns, hides, &c	1,061,799	Flour	99,156
Shirtings, white and gray	1,145,253	Provisions, including butter, hams, bacon, and condensed milk	361,800
Victoria lawns, T-cloths, and other cotton good	1,223,326	Books and pencils	169,480
Tobacco	93,098	Paper, all kinds	196,230
Wines and liquors	488,551	Clocks	88,589
Cannons, muskets, &c	374,491	Locomotives, and parts of	90,089
Medicines and chemicals	979,894	Watches	165,774
Dyes and paints	653,207	Hats, caps, &c	122,213
Glass and glassware	249,047	Machinery—mining, pumping, paper making, &c	459,584
Grain and seeds	103,146		
Iron nails	456,499		

The principal imports from the United States to Japan for 1886.

Articles.	Value.	Articles.	Value.
	Yen.		*Yen.*
Kerosene oil	2,358,497	Mercury	44,875
Leather	149,852	Cotton duck	22,789
Flour	97,454	Tobacco	29,316
Provisions	60,553	Watches and fittings	18,255
Condensed milk	57,102	Drugs, medicines, and chemicals	50,642
Books	53,230	Lead pencils	43,655
	81,331	Iron, and manufactures of	16,130

increased to 3,083,601. These figures speak for themselves, indicatiug the fact that while the balance of trade against the United States has not been decreased, American exports to Japan have increased in 1886 over 1885 more than half a million in value, to wit, 632,802. The demand, per contra, in America for Japanese productions has increased largely over 1885, the Japanese exports to America in 1885 being more than 15,000,000, while for 1886 it has swelled to over 19,000,000. We buy of Japan more than Great Britain does by 15,792,861; than France by 10,355,314; and than Germany by 19,123,758. The United States should and can sell more largely to Japan than now of the varied products of our soil, wheat, flour, &c., and the manufactures of our mills and the fabrics of our looms. The absolute cost of production and manufacture, the vast advantage in the distance of transportation by sea, should enable our people to place their goods in the Eastern markets at as low prices (certainly for the same grade of goods) as French, English or German manufacturers. Your commercial statistics of the trade relations between China and the United States shows the gratifying fact that American "piece goods" and cotton and woollen fabrics have found a ready and annually increasing demand in China. Why not in Japan, with her 38,000,000 of consumers, as well? I have had the honor to direct your attention to the fact heretofore that so far as concerns materials for railway construction, and bridges, and locomotives, &c. (and even our iron and steel rails can enter into competition with English and German rails if our people will only submit to smaller profits, as the latter do in their shipments hither), can successfully compete with our European rivals.

We have read much and heard more about "favorites" at court at this capital, so far as awarding of Government contracts for public works is concerned. Such intimations have boldly entered in the contentions of English merchants with their Government and are alluded to in official papers of the British diplomatic authorities in Japan. No such charges have been made by the United States diplomatic representative at this court, and yet while I have asked earnestly for my countrymen the sheer privilege in common justice and equity to openly compete for such Government contracts (such as railways and other public works upon which Japan is now entering largely), and while I have been told that an equal showing would be given to Americans, it has not been done, and the largest and most profitable contracts of the Government proper have been awarded to German, English, and French people. This in the face of the fact that I had, for our American iron men and railway constructors and civil engineers, assured this Government that they could and would not only duplicate all such contracts, but at a considerable per centum less than others had bid for them.

Nevertheless, the people of Japan trade with us by many millions more than with any other nation.

We consume nearly all her tea, and over one-third of all her silk, on which no duty is paid at our ports.

These facts and figures show that of the entire export and import trade of Japan with all the nations of the earth, the United States represents actually one-fourth of that aggregate.

"Other things being equal," therefore, on th

P. S.—I have omitted in the foregoing dispatch to call attention to the fact that the Japanese customs returns speak of the "United States and Canada" as one; and that "East Indies and Siam" are put together. This is confusing, but as to the relative proportion of English and American trade it does not practically alter the status. "British India," as the Department is aware, is only a part of the "East Indies," while Siam no more belongs to Great Britain than Canada does to the United States.

UNITED STATES LEGATION,
Tokio, Japan, June 2, 1887.

OSAKA AND HIOGO.

Report of Consul Jernigan.

I submit the following report on the trade and commerce of this consular district for the fiscal year ending June 30, 1886, prefaced and followed with such observations as may be relevant to the subject of the report:

PRINCIPAL CITIES.

Osaka and Hiogo are not only the principal cities in this consular district, but are also two among the chief cities of the Empire of Japan. Osaka at one time contained more inhabitants than any city in Japan, and is now only second in population to Tokio, the capital. It has been for centuries the leading commercial city in Japan, and its central position enables it to maintain its commercial importance. According to the last census, there were 95,325 houses within the city limits of Osaka, and a population of 308,742. From the numerous canals intersecting Osaka, it is called the Venice of the East, and the Japanese sampan performs the office of the Venetian gondola.

Hiogo's importance as a commercial port is of recent date, for in 1868, when it was first opened to foreign trade, it was a small fishing village, scattered along the shores of the Bay of Osaka. Now it contains 24,268 houses and a population of 61,363. It is divided into two sections—one the native town, and still retaining the name of Hiogo; the other the modern settlement, and called Kobe. Within the boundaries of the latter is included the land conceded by the Japanese Government for the residence of foreigners, located in the northeastern part of the city. This section of the city is devoted exclusively for the residences of foreigners, and is under their municipal control, police and otherwise. Its wide and clean streets and beautiful buildings, all after the style of Western cities, have secured for it the name of the model settlement. The United States consular building is situated in that part of the city and in the most pleasant section of the foreign [illegible] the Bay of Osaka.

same cold and warm weather experienced by the inhabitants of South Carolina and Georgia, the only perceivable difference being in the dampness of the atmosphere, which appears to be more penetrating here. The health of this consular district is generally good. Last summer it was visited by the cholera, which left about 21,206 dead in the wake of its fatal march. But in other parts of the Empire where this disease appeared, especially at Tokio, the daily mortality was much greater than it was in this part. There were but very few deaths among the foreign population from cholera, and when these did occur it was ascertained to have been the result of imprudence. Another peculiarity of the disease was that it seldom invaded the homes of the better class of Japanese, but confined its attack to the lower class, known as coolies. The total number that died during the past summer from cholera in the whole of Japan is estimated at 101,695.

This is more than perished during the civil war of 1868–'69, when the office of shogun was abolished and the mikado became the *de facto* as well as *de jure* head of the Japanese Government.

TOPOGRAPHICAL ASPECT.

In this district, as in Japan generally, the land is mountainous and hilly, the level land, suitable for agricultural purposes, lying between the mountains and the bay. Towards Osaka and beyond there are some beautiful plains, fertile as gardens, and yielding large crops of rice and wheat, the principal products of this consular district. The small area of level land has forced the Japanese farmer to terrace the sides of the mountains and hills wherever possible, and from these inclined fields large crops of vegetables and cereals are gathered. The system of drainage seems to have been reduced to perfection in Japan, for notwithstanding the heavy rains during the wet season the crops are seldom injured, and the hillsides and plains present the appearance of rich and fertile gardens in a constant state of cultivation and production.

TRADE AND COMMERCE.

There have been such slight variations in prices here during the past season that the tone of the market may be stated to have ruled steady.

EXPORTS.

Table No. 1, annexed to this report, and showing the declared value of exports from this consular district to the United States during the four quarters of the fiscal year ending June 30, 1886, exhibits a healthy condition of trade, evidenced by the steady and marked increase of exports of each quarter, save one, over the corresponding quarters of the preceding year. The figures in the table are taken from the records of this office, and the values are estimated upon a gold basis. It will be observed that for the quarter ending March 31, 1886, there was a decrease in the value of exports of $94,053.87. If the total value of exports for the quarter ending March 31, 1886, be deducted from the total value of the exports for the quarter just preceding for the same fi[illegible]

which sometimes disturb the course of business. But if we follow the table further and compare the total exports for the four quarters ending June 30, 1886, with the four quarters covering the same periods of the preceding year, there is an increase in favor of this year's trade of $910,055.74.

Tea stands at the head of the list of exported commodities, and though the prices in the United States have not been remunerative for buyers here, still the quantity exported is far in excess of former years. Owing to favorable news from the American tea market, large purchases were made during the early part of this (December) month. This advance in the price of tea may operate favorably towards increasing the supply for next season, but it is doubtful if prices will be higher than heretofore. There may be sudden advances in tea as in other commodities, but the prudent dealer will regulate his purchases and sales by the general tone of the markets, and not forget how the market may be affected by the large supplies now drawn from India and other comparatively new fields of production.

Camphor is another important commodity exported from this port. The table shows us that camphor to the value of $224,878.22 was exported to the United States during the last four quarters. The gradual destruction of the camphor trees in Japan must diminish the means of supply from this country and prices must necessarily advance here. The extraction of camphor totally destroys the tree. As observed in a recent report to the Department on the subject of camphor, there was once a custom in Japan that when a person destroyed a tree, another was immediately planted in its stead, but such a custom no longer prevails. The trade in Japanese curios continues good, and, as seen from the table, curios to the amount of $99,302.53 were exported to the United States during the four quarters of one fiscal year.

The most prominent curio merchants in this consular district, as well as the names of other prominent merchants, will appear under the proper heading in this report.

Our Table No. 1 shows us that the United States take from this port Japanese rice to the amount of $48,361.48, but rice is principally exported to Germany, England, and Australia, while silk cocoons, floss and raw silk, sulphur, tea, straw ware, and rags go mostly to the United States. Is it necessary for the United States to send to Japan for rice?

If we follow the subject of exports further and consider the quantity exported from this consular district to foreign countries as well as from the whole of Japan to foreign countries, it appears that this division of trade is in a satisfactory condition.

The annexed Table No. 2 will show the condition of this branch of the trade. The figures are taken from the latest custom returns, and the value estimated upon the basis of the Japanese silver yen, which is now worth 80 cents in gold, but the average value of which, for the past twelve months, has been about 77½ cents in gold.

The aggregate value of exports from this consular district to foreign [illegible] June 30, 1886, amounts to

countries from this consular district. Among the commodities exported from Japan, silk stands first on the list in value, with tea second, and grain and provisions third; these three articles amounting to 30,512,245.73 yen.

IMPORTS.

From the table of imports annexed and marked No. 3, a favorable view is presented of the trade in imported goods. This table and the values are based upon the same sources of information and estimates as Table No. 2.

During the fiscal year ending June 30, 1886, the imports to this port were valued at 8,520,822.11 yen, while for the preceding fiscal year they are valued at 9,851,503.73 yen, showing a decrease in the value by 1,330,-681.62 yen. The same decrease is marked in the value of imports to the whole of Japan, for during the fiscal year ending June 30, 1886, the imports were valued at 28,009,579.54 yen, while for the preceding fiscal year they are valued at 31,769,460.72 yen, showing a decrease in value by 3,759,881.18 yer

EXPORTS AND IMPORTS.

The theory that a nation was growing rich whenever its exports exceeded its imports is no longer contended for by political economists as an infallible criterion; but when a farmer or mechanic or merchant sells more than he buys, there no doubt arises a feeling of conviction that he is on the road to prosperity, and the balances given in Table No. 4 in favor of the export trade of Japan as contrasted with the import trade must be comforting to the Japanese Government. Comparing the two fiscal years, one ending June 30, 1885, and the other ending June 30, 1886, the export trade for this port during the latter year is 1,114,386.49 yen in excess of the import trade for the same period, while during the former year the import trade exceeded the export trade by 2,406,383.04 yen. Contrasting this trade for the said two fiscal years for the whole of Japan, the exports exceed the imports for the fiscal year ending June 30, 1885, by only 3,303,517.44 yen, while for the fiscal year ending June 30, 1886, the excess of exports was 13,867,997.04 yen.

In connection with the subject of trade and commerce, and for further information, I submit the annexed statistical tables.

These tables relate to the trade and commerce of this consular district, and are copied from the most authentic sources. The custom and trade returns of the Japanese Government are not of such a nature as to present a succinct and comprehensive view of the subject, and the difficulty of arranging statistics with clear intelligence and instituting desirable comparisons will be readily acknowledged when it is understood that the statistics have to be compiled from the trade pamphlets, issued monthly, and the compiler forced to make his own fiscal year. I have brought down the estimates to as late a date as possible, in view of the difficulties mentioned, which no doubt will be removed, as Japan is perfecting as fast as possible her system for imparting information on all important subjects.

presented in the custom returns as being imported by the United States from Japan, do not stop in the United States at all, but go through to Canada. This, however, will leave a balance against the United States of $8,000,000. Whether such a balance is to continue against my country remains, I believe, with our own merchants. Certainly, if not altogether with them, at least in great part. Japan will, of course, trade with those nations offering her the better advantages, but as our country is nearer than any other Western nation it seems reasonable that our merchants might offer inducements favorable towards securing a larger and more lucrative portion of Japan's trade.

In a recent number of the *Choya Shimbun*—a leading and influential Japanese journal—the subject of the trade relations between the United States and Japan is referred to as follows:

It is certain that America will be the future market of this (Japan) country and therefore every obstacle in the way of the commercial prosperity of our two nations should be removed. Not only on account of our historical relations and old-time friendship, but also because of her geographical position is America the country to which the eyes of our countrymen naturally turn. Taking the size, population, and rapid development of the United States into consideration, it is not too much to say that it will be the world's future center of civilization. There is everything in America to excite our interest in commerce with her. We welcome her merchants and manufacturers here, and we shall be happy to see them compete successfully with other nationalities. If American traders take up this matter with courage and an enterprising spirit they will certainly be the rivals of England or any other nation.

* * * * * * *

Our (Japan) Government is endeavoring to follow Germany in the field of politics, military affairs, and engineering. England and France have long been the recipients of the Government's favors; while the foreign advisers of our administrations are taken chiefly from these three countries. We know not what secret motives the Government may have in so doing, but the Japanese people are far fonder of America than any other nation.

Another leading Japanese journal, the *Nichi Nichi Shimbun*, and often regarded as semi-official, says in connection with the same subject:

That it is our earnest desire that the trade of our two nations, America and Japan, will change for the better in the future.

The two journals named above are reliable exponents of public sentiment among the Japanese, and which they have expressed in no uncertain tone. The invitation has been cordially extended to our American merchants and it is time for them to come over here and rub up against the energetic merchants from Europe. No doubt but that the friction would be of advantage all around.

I have consulted with a number of foreign resident merchants in Japan and I find a uniformity of opinion among them as to the superior quality of American products, but there is great complaint about the high freights from America here.

I am assured that a box of goods can be shipped from New York City to Liverpool, then from Liverpool via Suez Canal to Yokohama, at a [illegible] than it can be shipped direct from New York City via San [illegible] to remain, it is quite

a disadvantage, and when to this is added high freights, they are rendered powerless to compete successfully with European merchants, who, though having the same gold standard, are favored with lower freights. It is subtle factors underlying commerce that make the losses and gains in trade. With steadiness of prices in the money markets of Western countries and lower freights from America, commerce with the East will be more inviting to our countrymen.

PUBLIC WORKS.

Among the important Government works in this consular district the mint, situated in the city of Osaka, is regarded as of great interest. It was opened for the reception of bullion from the public on August 4, 1871, and has been in successful operation, excepting short intervals, ever since. It is supplied with the most improved modern machinery and superintended by experienced and able officers. According to the last report there were employed 186 officials and subofficials, and 489 workmen and servants. This report is for the year 1885, and the gold bullion imported into the mint, of various description, during the year is 45,175.76 troy ounces. The silver bullion, of various description, is estimated at 5,239,705.54 troy ounces, and the amount of coin struck, both gold and silver, in this financial year has exceeded that of the last, the chief increase being in the one yen silver coin, of which 5,869,548 have been coined. This amount has never been produced during any previous year since the establishment of the mint. The total receipts of the mint since its commencement are 12,349,535,938 yen, and the expenditures 6,321,570.254 yen, showing a balance in favor of the mint of 6,027,965,684 yen.

Another important Government work is the arsenal, also situated in the city of Osaka. The arsenal was established in 1870, and the average number of workmen employed this year is 1,200, with wages averaging about 34 cents per day. The arsenal is supplied with first-class machinery, capable of manufacturing heavy cannon for coast defense, as well as medium artillery for attack and defense, and artillery of small caliber for field and mountain. Small-arms and ammunition are manufactured, too, with rapidity and skill. Its arrangement is systematic, and everything appears to be in perfect order.

One of the navy-yards of the Japanese Government is in this consular district, and is situated at this (Hiogo) port. It was formerly known as the Kobe Iron Works, which were established in 1873 by E. C. Kirby & Co., but was purchased by the Japanese Government in 1884, and is now known as the Imperial navy-yard, Onohama, Kobe. The number of workmen employed at present is 600. The yard itself has no dry-dock, but is capable of building or repairing any vessel except an iron-clad, and to enable the work a basin has recently been constructed. The workshops in the yard are as follows: Machine shop, fitting shop, smith and boiler shop, pattern shop, foundry, and rigging loft, together with wood and iron ship building sheds. The tonnage of the largest vessel built in the yard was 1,172 tons B. O. M., and the two war ships that have been built answer the following description:

PRIVATE ENTERPRISES.

The largest cotton mill with foreign machinery ever established in Japan was built in Osaka in 1882, known as the Osaka Hoseki Kwaisha Cotton Mills. The first mill contained 10,500 spindles, but these have now been increased to 32,000. The mill employs 1,200 laborers, and produces per week 270,000 pounds of yarn. All the machinery was imported from England, and is classed as number one.

The paper mill, purchased in 1877 from an English company by the American firm, Walsh, Hall & Co., is still in successful operation at this place. Improved machinery has been added since the purchase, and the mill is now in first-class order, and produces excellent paper. The building is of brick, and large and substantial, covering several acres of ground. The materials used are Japanese rags, and the machinery so perfect and systematized in its arrangements as to thoroughly cleanse the rags from every impurity. The average number of laborers employed is 200. The monthly consumption of coal is 300 tons; of rags, 250,000 pounds, with a production of 200,000 pounds of printing paper per month. The gentlemen composing this firm appear to be active business men, the head of the firm, Mr. Thomas Walsh, being a gentleman of long residence in the East, and of high attainments.

In this consular district the following are the principal American merchants: Those who deal principally in tea are Smith, Baker & Co. and Colgate, Baker & Co. General exporters and importers are: Walsh, Hall & Co., China and Japan Trading Company, American Trading Company, Meyer & Co., curios; J. D. Carroll & Co., and R. Isaacs & Bros.

The Japanese merchants are: Importers and exporters, Okura & Co., Kai Tsu Sha & Morimura & Bros., curios; Ohashi Shobei. The foreign banks are: The Hong-Kong & Shanghai Banking Corporation and the New Oriental Bank. Native banks are: Dai Ichi Kokuritsu Ginko (First National Bank), Mitsu Ginko, and Shokin Ginto (Specie Bank).

The above-named merchants and banks are graded high and considered sound and responsible.

Prices current in this market.

Articles.	Cost.	Articles.	Cost.
Heavy tweed.....per yard..	$2 50 to $4 00	Pork.....per pound..	$0 12
Twills and coatings.....do....	3 75 to 6 00	Mutton.....do....	22
Overcoatings.....do....	2 50 to 6 00	Veal.....do....	12
Fine cloth.....do....	3 75 to 6 50	Fruit...per case of 2 dozen tins..	8 00
Cloths bought by Japanese at wholesale.....per yard..	*1 10 to 1 80	Salt pork.....per pound..	14
Flour (200 pounds)....per barrel..	8 00	Salt beef.....do....	9
Beef.....per pound..	8	Rice.....per picul (133 pounds)..	2 75

* Double width.

...merchantable goods. Fancy goods ...foreign styles

and the heads of these establishments tell me that there never was in their experience such a rush of business and mania for foreign dress.

Encouragement is given to the desire for change by the educated classes of Japanese, and some of the leading scholars and writers of the Empire advocate it as a means of promoting civilization and an agency in aid of the Government in carrying out its plans of reform.

CENSUS.

It is estimated that there are now 2,292 Europeans and Americans residing at Tokio and the open ports of Japan. Of this total 1,065 are British subjects, 447 are citizens of the United States, 269 Germans, and 201 citizens of France, the balance representing eleven other nationalities.

There are 210 foreign firms carrying on business, of which 91 are British, 46 United States, 33 Germans, and 18 French. The approximate number of Chinese residents is 3,876, and there are about 139 Chinese firms established in business. If the above figures be compared with the corresponding figures for 1876 and 1880, a considerable decrease appears in regard to European and American residents, but a very large increase in that of Chinese.

Within the past ten years European and American residents have fallen in numbers by 375, while the Chinese have in the same period increased by no less than 1,769.

This decline in the number of European and American residents must to a large extent be attributed to the diminution of the number of foreign employés in the service of the Japanese Government. The great majority of foreign residents in Tokio come under this class, and they have within the last year declined in number nearly two hundred. Another cause may be attributed to the falling off of business, or of its transfer from European to Chinese hands.

In 1870 there were 221 foreign firms established in Japan; in 1880 there were 258, while now there are only 210. There is no return of Chinese firms in 1876, but in the following year it was 53; in 1880 it was 102, and now 139. The term firm includes not only mercantile establishments strictly so called, but store-keepers and other commercial concerns of every description.

COMMERCIAL CHANGES.

There is much complaint among the merchants of the East of trade falling off, and various reasons are assigned. Some have been so sensitive as to set it down to the machinations of the Japanese Government. Others to the fluctuations in the price of silver. In this discussion it seems to have been forgotten that there are certain laws that govern trade as fixed and unyielding as the laws which govern the heavenly bodies. Whatever is essential to success to-day, other things being equal, may be equally as injurious to-morrow, and the failure to recognize this truth by merchants dealing with Japan is the true cause why they are feeling the depression complained of. They are not keeping pace with the spirit of progress, forgetting that the Japan of to-day is not the Japan of twenty, ten, nor even three years ago. They will have

countries. Civilization carries with it new ideas, new duties, and new responsibilities, and Japan is advancing in civilization, and the old systems of business are being discarded with as much rapidity as the old customs.

The doctrine of self-interest, which the English philosopher declared governed the world, has its illustrations in Japan, as in other nations, for the Japanese are members of the same great human family.

As all advances in civilization tend toward the general good of mankind, so will the adoption of new business principles by the Japanese merchants bring Japan within easier and cheaper reach of the marts of Western trade, and as the United States is Japan's nearest Western neighbor, a larger share of the benefits and advantages likely to flow from the changed condition referred to should be shared by our own merchants.

EUROPEAN AND AMERICAN MERCHANTS.

European merchants, residents and non-residents, are more in the habit of consulting the taste and wishes of the Japanese than American merchants. They ascertain what style of goods suits and pleases the Japanese, and then give their orders accordingly to the home manufacturer. Such a policy has been successful and has resulted in giving to European merchants the greater part of Japan's trade. But the British merchant is slow to change his habits of business, while the German merchant adapts himself, with more readiness, to the changed status of business, and this is one reason why trade is being diverted from British channels and drifting in favor of the Germans.

There is, however, no cause for alarm among American merchants, for they occupy a position to-day in the East that is far preferable, and, if utilized, will bring with it advantages that will prove to be of a permanent nature. The goods imported from America are of a decidedly better quality than the goods in the markets of Japan imported from European countries, and Japan wants better goods now than she did several years ago.

Her advances in civilization will be attended with increased demands for superior qualities of merchandise. Of course, it may be expected that the merchants from other nations will be on the spot to note carefully every change, but it is an undeniable fact that American merchants have never yet put anything spurious or adulterated on the markets of Japan, and the high opinion entertained of American brands is fully proved by the Japanese constantly labeling their wares with the brands and names of our own manufactures.

In the great commercial chancery of the East I am glad to write that my own countrymen occupy a most creditable and honorable position, and having always done equity, they have the right to expect equity. It is no less pleasing to report that the merchants of the United States have a moral influence in Japan not surpassed by that of the merchants of any other nation in the world. But all these advantages will be of [illegible] will come to Japan, or send experienced face to face and

turies prior to the revolution the mikado was only in theory the head of the Japanese Government. He was never seen by his subjects, but was venerated by them as a God-descended ruler, without spot or blemish, and infallible. And though an absolute ruler he seldom took any part in the administration of the affairs of his Empire. This was all intrusted to an officer called the shogun, whose capital was four hundred miles from that of the mikado's, and who was practically the sovereign of Japan. During this period there were numerous feudal chiefs in Japan, known as daimios, each being supreme within the territorial limits of his province, but ruled and dictated to by the shogun. Such a system of government for a country closed against all communications from the outside world could only be attended with dissensions among rival daimios which constantly disturbed the peace of the Empire, and fostered and encouraged a spirit for military enterprise only. The pursuits of peace were neglected, and when peace came it was the peace of despotism.

The above outline of the form of government existing in Japan prior to the revolution of 1868–'69 is given in order that a more intelligent idea may be presented of the radical changes wrought by it. These went directly to the bottom of the old system and uprooted it. The mikado came out from his seclusion, became the actual and temporal head of his Government, moved among his subjects, and presided over his councils of state, like other enlightened rulers. The office of shogun was overthrown, feudalism abolished, and every vestige extinguished, and there arose upon the ashes of these old systems a strong centralized government. But this new order of things did not last long. The Government, though different and better from the old, was not in accord with the advanced civilized ideas entertained by the Japanese people, and a second change was decreed in December, 1885. This change was not so sudden and astounding as the first, but is more comprehensive, and afforded irrefragable proof of Japan's steady advance on the highway of political progress. The structure of the Government, as now constituted, consists of an Emperor, the minister president of state, the cabinet, and the senate. Of its new features the most important and radical is a well-defined partition of legislative and executive authority, hitherto combined, theoretically at least, in the person of the mikado, but now, by his own decree, separated in such manner that, while the executive power remains in the hands of the Emperor, the initiative of all legislation is handed over to the cabinet, the sovereign's share under the latter head extending only to the power of sanction. Next in importance to the Emperor is the minister of state, who leads the cabinet, fills the office of chief adviser to the Emperor, and exercises a large measure of authority over the whole executive. The cabinet consists, besides the president, of nine ministers of executive departments, and each minister is directly responsible to the Emperor for all matters within the limits of his competence. The senate possesses little or no real power, and is purely a consultative body, consisting of forty members nominated by the Emperor. It is powerless either to originate or veto measures and its functions limited to the discussion and elaboration of such

constituted after the legislative branches of the English and German Governments, partaking more of the character of the latter, to guard more securely the supremacy and personal rule of the mikado, and to prevent the cabinet being too much dependent upon a parliamentary majority.

TAXATION.

Having adverted to Japan's reformed polity in its relation to the organic structure of the Government, it will now be proper to refer to it in connection with such subjects as are more closely allied with the masses of the people, and a change in the administration of which is more sensibly felt by them. Under the government of the shogun taxation was not uniform in Japan. Each daimio had his own system of levying and collecting taxes within his own province. Land bore the largest proportion, and taxes were usually paid in rice. In some instances they were very oppressive and barely left the tenant enough for subsistence. The heaviest rate I have ever seen recorded or heard of was $\frac{7}{10}$, and the lightest $\frac{3}{10}$. Between these there were various other rates, such as $\frac{4}{10}$, $\frac{5}{10}$, and $\frac{6}{10}$. In addition to this want of uniformity in taxation, the measurement of the land varied also in different localities, though such variations were perhaps unavoidable under the feudal system; but when the whole country was brought under the authority of a single government it was impossible to continue to subject the people to inequalities, and in view of this fact the Government undertook, in 1873, to reform the land tax, and in 1875 abolished over a thousand descriptions of miscellaneous taxes which had been levied under the former régime, and from this time the whole people were brought under a uniform law of taxation. Most of these miscellaneous taxes yielded but little revenue, but they were parts of a troublesome system which, had their enforcement been continued, would have left the impression in the minds of the people that they were still being oppressed. To remove all grounds for such an impression was one of the main causes leading to their rapid abolition, and it has had the desired effect. Subsequent legislation has tended, more and more, to perfect and equalize the system of taxation in Japan, and the most enlightened and just laws on the subject are influencing such legislation.

JAPAN'S PROGRESS.

Notwithstanding Japan has within the last several years invested largely in public works and made large expenditures for navy and army purposes, the financial condition of the Empire is good. This is clearly shown by the readiness with which the moneyed men of the Empire invest in Government bonds. These bonds are largely and eagerly sought after, and some time ago, when the minister of finance, under the sanction of the Emperor, issued several millions of bonds in the interest of [illegible] was some apprehension felt that they would not meet [illegible] the financial strength of

Army.—This consists of thirty-six thousand men, capable of being largely increased from a population of 37,000,000. The geographical aspect of the country would seem to render the operations of cavalry upon an extensive scale impracticable and adapted more to the use of light field-pieces. Nearly all the harbors and the ports are overlooked by high hills and mountains, which could easily be converted into strong fortresses without great cost, so fine are the natural advantages.

Coast trade.—Prior to the restoration in 1868, the coast trade was entirely in the hands of foreigners, and Japanese were compelled to travel by foreign mail steamers, but, by the aid and encouragement of the Government, steamship companies were formed, and this trade is now in the hands of the Japanese and carried in their own ships. Steamers of the finest models, elegantly fitted up, and lighted by electricity and flying the Japanese flag, run between and to and from the different ports upon schedule time, and the number and business are daily increasing.

Railway.—Not a foot was laid in Japan at the date of the restoration, and the first practical idea the Japanese ever had of a railroad was that given at Kanagawa by Commodore Perry at the time of negotiating the treaty that unlocked Japan to the commerce of the Western world. Now the chief open ports are connected with cities in the interior, and new tracks are being laid and plans in contemplation that will, before many years, make it easy to travel to points that can only be reached by foot or the aid of the jiurikishaw, and bring back to the open ports, by the aid of steam, the agricultural and mining products that are now conveyed on the backs of horses or in small wagons pulled by coolies.

There are at this time in Japan about 312 miles 46 chains 11 links of railway.

Telegraphs.—When, in 1872, the telegraph poles were cut down by the native population it was evident that the non-progressive spirit which existed and governed Japan anterior to 1868 had not become extinct. At that date there was no such thing as a telegraph in operation, and for expresses the only available means were men or horses. It required days and often months to convey important Government messages from city to city and from the capital to the chief military points in the Empire.

Such difficulties have been overcome and all the most important cities and towns and forts in the Empire are able to communicate with each other instantaneously. In 1879 Japan joined the international telegraph convention and telegraphic communication with all parts of the world is an easy matter. There are now in Japan about 6,000 miles of telegraph, and this number is being yearly increased.

Post-offices have also been regularly established for the general public and private convenience, and in 1874 Japan joined the international postal convention, which increased facilities for communicating with foreign countries. A letter can be sent to any part of the Empire for 2 cents, while under the rule of the shoguns and daimios it often cost 25 cents to send a letter 366 miles, and then by any opportunity that might present itself. There are now about 51,181.26 English miles of postal lines in Japan.

Light-houses.—In the interest of commerce extensive improvements

dition to the numerous buoys and beacons and harbor improvements already carried out and in contemplation of perfection, there are, to this date, 58 light-houses in Japan.

Education has not been neglected. The statesmen of Japan appreciate the importance of educating the people, as every resource for this purpose is being called into active operation. Up to the restoration there were but few schools in Japan. These were supported by the daimios, and were subject to the caprices and whims of these feudal princes. In fact, there was no regular system of education. But now universities, high, middle, and primary schools are established in all the provinces, and the means and facilities for education are being rapidly placed within the reach of all. This may be regarded as the best evidence of the permanency of Japan's progress. And I observe that wherever these schools are numerous the natives appear to have a more enlightened look and to carry themselves more erect and manlier. There are now in Japan 5 universities, and over 28,000 high, middle, and primary schools. There are over 68,000 teachers, and over 2,500,000 students. Special attention seems to be given to the promotion of educational facilities and a desire to learn to pervade all classes.

Laboring classes.—No class of the Japanese people have been benefited more by Japan's reformed polity than the laboring classes, for no part of the population carried heavier burdens under the old régime.

It appeared that the laborer had no privileges which anybody was under legal obligations to respect. His all belonged to his immediate lord, the daimio, and his life would be taken for any fancied insolence or insubordination. There was no power to restrain the hand of a daimio when raised against his vassal, and no appeal from his decree, however cruel or unjust. The will of the daimio was both the court and the law, and the laborer had no redress against his superior. There were no courts in which to prefer his complaints. The tribunals which are the enlightenment and boast of our Republic, and before whose bar all men stand equal, were not known to him. However much the laborer may have suffered or been wronged, he was compelled to bear in silence the unjust oppression. The slightest murmur and the sword of the executioner ended his career on earth forever.

He had no place that he could call his home, for even in the midst of his growing crop he could be forced from the premises without a protection from the pitiless storms of petty despotism. The title to all land was in the daimio, subject to the paramount ownership of the mikado, whose title to the whole of Japan was supreme. Such was the condition of the laboring classes in Japan when the last of the Tokugawa shoguns was compelled to surrender an office which had been filled for 250 years by members of that family, but passed from it and was abolished by special decree in 1868.

All this disregard for right and liberty has materially changed. Courts have been established throughout the Empire, and the lowest can prefer his complaint against the highest and have it adjudicated in [illegible] countrymen. Every wrong can be redressed by [illegible] can compel the

be expected to be as good as could be desired. This class is still poor. It may be said, emphatically, that there is great poverty among the lower classes in Japan, the inheritance of long centuries of superstition and despotism. With a population of 37,000,000, living on an area of 150,000 square miles, two-thirds of which are mountains and hills, unsuited for agricultural purposes, labor will continue, for a long time, to be cheap and abundant. A good laborer can be hired for 15 to 25 cents per day, and he will work from 6 a. m. to 9 p. m. and board himself. The laborer don't wear many clothes and often appears in a suit that would excite the envy of the staunchest dude.

In Japan's progress, other and newer fields will present themselves for the employment of Japanese laborers, a subject of primary consideration for those in authority, for unless some outlet is found, native or foreign, labor will be without employment, which has ever been a disturbing element to the peace and prosperity of nations.

A laborer's house is mostly one story and contains not more than two or three rooms, in addition to a small room each for cooking and bathing purposes. The floor of the rooms is about one foot from the ground and covered with soft thick straw mats, which are kept very clean, for the Japanese always take off their sandals or clogs when entering the house. Furniture is not used at all in a real Japanese house, except a small table about a foot high and fifteen inches square, which is only called into requisition at meal time, the family sitting on the mats like tailors on their benches. The bedding consists of soft, thick, cotton quilts spread on the mats. A laborer's house, including everything connected with it, will not cost more than $100 in gold. In such houses ventilation and warmth seem never to be considered, for the paper partitions and slides are only protected in cold and stormy weather by strong wooden shutters, fitting badly, and through which the wind and rain find little difficulty in entering. And there are neither stoves nor grates in such houses, for the materials employed in building are so inflammable that it would be dangerous to use them. In the place of stoves and grates there are braziers filled with heated charcoal, and at night the brazier, when the weather is cold, is covered with a kind of earthenware and placed under the quilt, the latter being protected from the fire and heat by a wooden grating. Though labor is cheap in Japan, and its reward discouraging, though the laborer is unfamiliar with the comforts which surround the home of the workingman in my own country, I believe that the Japanese laborer is the happiest and best contented being I ever saw. If his pan and cup are filled with rice and tea he appears the very embodiment of happiness, and over all the ills of life "victorious."

The agricultural implements, as well as machinery of almost every description in use by the Japanese, are of the most primitive origin, but attention is now beginning to be directed to the advantages of modern inventions, though labor is still so cheap and abundant in Japan that such inventions have not yet been received with remuneration in the markets, and there is not any sufficient demand to stimulate shipments of machinery and agricultural implements to this country, except to fill special contracts. The outlook, however, is more encouraging than in former years, and a nation that is fast becoming

BRITISH INDIA.

CALCUTTA.

Report of Consul-General Bonham.

I submit the following report of the trade and industry of British India for the year ended March 31, 1886, that being the end of the fiscal year to which the statistical reports of the Government of India, just published, have reference.

AGRICULTURE.

The past year throughout India generally has been ordinarily seasonable, and the yield of most of the agricultural production adapted to its soil and climate have at least come up to the average of previous years.

WHEAT.

From what I consider reliable information, I conclude that the area devoted to wheat in British India for the year under review was about 27,392,742 acres, and the total yield 288,938,496 bushels, or an average of 10.5 bushels per acre. The quality of Indian wheat as compared with that of our Pacific coast, with which I am familiar, is, I think, materially inferior to the latter. The Indian grain is not so large or plump or fair colored as the wheat of our Western States. I know that the bread made from Indian wheat flour, which I have used here, is of darker color and inferior in quality to that made from American flour.

I am advised, however, that the Indian wheat which is exported to Europe is mixed and ground with wheat of a superior quality, by which process a fair marketable grade of flour is obtained.

The method of cultivating the soil and harvesting and thrashing wheat in this country is, in the main, the same as it was centuries ago; and from the conservative disposition and caste prejudices of the native ryot (farmer) there seems to be great difficulty in inducing him to invest in modern agricultural implements, or to do anything differently from the way his father and his father's father did before him, and, in fact, there is not, owing to the extreme cheapness of agricultural labor, the necessity for improved and labor-saving agricultural implements and machinery in this country which exists in the United States and many other countries. Here the tiller of the soil leases a little patch of ground, consisting ordinarily of about 5 to 10 acres, and with his rude plow, often little better than a forked stick with an iron point, he hitches on to his small pair of bullocks and scratches over his patch, which he sows by hand and covers with a bamboo harrow or drag con- [illegible] crosswise. He reaps his grain with [illegible] winnows it

resents a capital of not more than $40 or $50, and his hired help (if he should require any) can and does work, feed, and clothe himself, according to the Indian fashion, for an average throughout the wheat-growing provinces, on about $2.50 per month.

The native day laborer in India, either at farming or other unskilled employment, does not seem ambitious to get rich or even financially independent. Of his wages, as above stated, I would judge that he expends about $2.40 for food, consisting principally of rice and dall, and occasionally some fish, and the balance, I would conclude from observation, is invested in clothing and incidentals. This condition of things when there is a failure of crops, as sometimes occurs from extreme drought, results in those great famines of India which occasionally occur, in which many thousands of these poor creatures die from starvation.

The following table shows the total exports of wheat from India for the past nineteen years, and will, for convenient reference, be of interest as showing the entire history of wheat production in India so far as it has become an article of export:

Years.	Quantity.	Years.	Quantity.
	Cwt.		*Cwt.*
1867–'68	299, 385	1877–'78	6, 340, 150
1868–'69	275, 481	1878–'79	1, 044, 709
1869–'70	78, 208	1879–'80	2, 195, 550
1870–'71	248, 522	1880–'81	7, 444, 375
1871–'72	637, 099	1881–'82	19, 863, 520
1872–'73	394, 010	1882–'83	14, 144, 407
1873–'74	1, 755, 954	1883–'84	20, 956, 495
1874–'75	1, 069, 076	1884–'85	15, 830, 754
1875–'76	2, 498, 186	1885–'86	21, 060, 519
1876–'77	5, 583, 336		

The following table shows the aggregate imports of wheat and flour into the United Kingdom of Great Britain from the several countries named for the past five years:

Years.	From Russia.	From United States.		From Egypt.	From India.	From other countries.	Total.
		Atlantic ports.	Pacific ports.				
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*
1881–'82	4, 089, 308	31, 498, 568	12, 278, 094	1, 072, 182	7, 337, 924	12, 229, 238	68, 505, 314
1882–'83	9, 659, 079	26, 635, 657	16, 302, 322	177, 115	8, 463, 174	16, 060, 806	77, 298, 152
1883–'84	13, 398, 047	23, 982, 160	13, 417, 060	1, 173, 019	11, 248, 988	17, 248, 669	80, 467, 943
1884–'85	5, 496, 839	22, 808, 579	10, 168, 952	1, 000, 764	7, 980, 951	14, 945, 372	62, 401, 457
1885–'86	11, 986, 359	21, 899, 674	14, 107, 513	109, 983	12, 101, 963	17, 083, 501	77, 288, 993

I have referred thus fully to the subject of the production and exportation of wheat and flour from India and the other countries named, for the reason that I have observed—especially in the Pacific States, in view of the low prices which have ruled in wheat for several years past—an increasing anxiety with our farmers at home to learn the causes of the reduced market value of this important cereal, as well as the future out-
look for its further profitable

And furthermore, there is no doubt, I think, that wheat-growing in India is yet in its infancy, and that its further development depends principally upon the means of transportation to the sea-board. British India has already in operation over 12,000 miles of railway, and during the past five years the average annual rate of the construction of new road has been 662 miles.

The Government of Great Britain is not content with being the great public carrier of the world, but she seems of late years to be possessed of a laudable ambition to produce her own breadstuffs as well, and I fear (however unpleasant it may be to contemplate the fact) that with the cheap native labor of India and the constantly growing facilities for transportation, we shall find her a formidable competitor as a producer of the "staff of life."

It should also further be borne in mind that the surplus wheat of India is now carried to Europe in steamships through the Suez Canal in three or four weeks, instead of going, as formerly, in sail vessels around the Cape, involving a voyage of three or four months and often material damage to the cargo from weevil.

KEROSENE.

There was a diminution in the quantity of kerosene imported during the year ending March 31, 1886, but imports are going on largely again since that period. The natives are now quite familiar with this oil, the cheapness of which (retailing in Calcutta at $1.30 to $1.50 per case) has caused its use to become quite general in the towns.

The attempts to find oil in the Borongo Island, near Akyab, in the Bay of Bengal, have been abandoned, and the oil brought down from Upper Burmah is used more for lubricating machinery than for illumination.

Attention has recently been directed to Beloochistan by prospectors for mineral oil, but it has not yet been satisfactorily established that it will produce the same in any very considerable quantity, and the quality of that so far found is said to be inferior. Although the Government of India has extended its encouragement to prospectors for mineral oil, yet it is generally conceded by all, I think, that for the purpose of illumination American kerosene practically holds the field.

If our Pennsylvania oil wells should become exhausted I do not know what our American shippers would do for outgoing cargoes to India, as about 96 per cent. of our total exports to this country consist of kerosene.

In this connection I mention the fact that by a regulation of the port commissioners of Calcutta, adopted during the past summer, no ship (American or otherwise) laden with kerosene oil is allowed to discharge her cargo above a point 16 miles below Calcutta proper, on the Hooghly River, known as "Budge Budge."

American ship-masters complain of the inconvenience of this arrangement on account of the remoteness of "Budge Budge" from their agents and consignees in Calcutta. On the other hand, the Calcutta [illegible] that the long line of ships moored at and [illegible] called "Garden

proper with a general conflagration. It was this circumstance principally, I understand, which led to the new regulation above referred to.

EXPORTS.

The exports from British India to the United States consist principally of jute and gunny bags, hides and skins, indigo, lac, saltpeter, and linseed.

Although India produces a superior quality of tea and a fair article of coffee, yet for some reason neither has been much exported to the United States.

It will be observed from the tables hereinafter submitted that the balance of trade between the two countries is largely in favor of India. Since I have been in Calcutta I have devoted a good deal of attention to the inquiry, which, I believe is considered a part of consular duty, as to how this condition of commercial affairs may be corrected. The commerce of a country, I understand, as a rule, is not considered to be in a very healthy or satisfactory condition when its imports largely exceed its exports. I find the fact to be that while nature's laboratory keeps lavishly pouring oil into the receptacles provided for it (as in the past), we can undersell nearly all the world in oil. But, on the other hand, I notice that when our people at home undertake to produce a manufactured commodity, the value of which depends largely upon the amount of skill and labor bestowed upon its production, they do not seem to be able as yet to furnish the same to the remote markets of the world at as low a figure as it can be procured from elsewhere.

Europe, with her steamships plying through the direct route of the Suez Canal, supplemented by her cheap labor, can furnish India with goods and wares of nearly every description, especially textile fabrics, on more favorable terms than they can be procured from the United States.

And this condition of things I have no doubt will continue to exist so long as the policy of protection of home manufactures prevails with us, instead of the other doctrine of a freer competition and the "survival of the fittest," which seems to obtain to a great extent in most of the manufacturing countries of Europe, as well as in India. But, in view of the fact that the absorbing question of the tariff in the United States does not seem to have become crystalized or materialized into any very definite form, I do not feel disposed to elaborate on the subject in a consular report, but content myself with a brief statement of the facts so far as they seem to me to have a bearing upon the condition of the commercial relations between the United States and British India.

As will be observed, my report on the subjects of agriculture and manufacture is not complete. The reason is that full statistics on those subjects have not yet been published, but are expected to be out soon. I will supplement this report hereafter with such further information on the subjects of agriculture and manufactures as may appear to me to be of general interest.

Upon the several subjects of the condition of the mines, fisheries, and forests in India, on which a report is exacted by Consular Regulations, I have little to submit of special public interest. Coal mines are worked extensively and to advantage, but the

an article of food both by Europeans and natives. The forests of India are carefully preserved by the Government, and its teak is a valuable hard wood somewhat resembling our American black walnut and is extensively used for building purposes as well as in the manufacture of furniture.

The fragrant sandal-wood grows here and is extensively used in the manufacture of ornamental boxes and cabinet ware.

The bamboo grows in great profusion and the natives use it in many ways and considerable quantities of it are shipped to the United States and elsewhere.

The tabular statements herewith submitted have been carefully compiled and the values converted into dollars, reckoning the rupee at 36 cents.

Of the six consular agencies within my jurisdiction I have up to date only received reports from two, Madras and Bassein.

B. F. BONHAM,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Calcutta, December 27, 1886.

The following table shows the aggregate trade of the ten largest ports of India for the year ended March 31, 1886, in the order of its amounts, including imports and exports:

Ports.	Amount.	Ports.	Amount.
Bombay	$299, 044, 293	Maulmain	$9, 720, 403
Calcutta	231, 413, 239	Chittagong	9, 491, 974
Rangoon	43, 149, 146	Akyab	7, 045, 922
Karáchi	36, 746, 188	Coconada	5, 990, 643
Madras	34, 504, 865	Tuticorin	5, 304, 506

The following table exhibits the value of the trade between India and some of the principal countries with which India has commercial connections, and the proportion of trade with each country to the total trade of India with all contries for each of the last three years. The countries are enumerated according to the importance of the trade with them in 1885–'86:

Countries.	1883–'84.		1884–'85.		1885–'86.	
	Imports and exports, merchandise and treasure.	Percentage on total trade of India.	Imports and exports, merchandise and treasure.	Percentage on total trade of India.	Imports and exports, merchandise and treasure.	Percentage on total trade of India.
United Kingdom	$312, 369, 296	5. 69	$302, 826, 139	5. 53	$304, 701, 195	56. 61
China, Hong-Kong	46, 632, 123	8. 37	44, 367, 561	81. 00	47, 899, 307	8. 74
France	33, 217, 802	5. 97	32, 002, 035	5. 84	26, 668, 999	4. 87
Straits Settlements	17, 273, 379	31. 00	18, 756, 323	3. 42	19, 404, 015	3. 54
China, treaty ports	15, 464, 091	2. 78	15, 385, 772	2. 81	18, 351, 945	3. 35
Italy	15, 557, 409	2. 79	14, 537, 675	2. 65	16, 374, 752	2. 99
United States	13, 074, 454	2. 35	16, 836, 535	3. 07	16, 138, 019	2. 95

... the last five years was as fol-

Excess of exports over imports, including Government transactions as well as general trade and treasure as well as merchandise, for each of the last five years.

Year.	Amount.	Year.	Amount.
1881–'82	$81,474,353	1884–'85	$46,284,748
1882–'83	68,321,929	1885–'86	49,780,848
1883–'84	75,704,708		

The value of the trade to and from India carried through the Suez Canal.

Years.	Amount.	Per cent. of the whole trade.
1881–'82	$317,134,039	61.4
1882–'83	336,333,630	62.2
1883–'84	372,801,357	65.8
1884–'85	365,544,408	65.6
1885–'86	381,319,394	66.2

Principal articles of merchandise imported, according to their importance, during the year ended March 31, 1886.

Articles.	Value.	Articles.	Value.
Cotton goods (including twist and yarns)	$87,417,462	Woolen goods	$5,011,701
Metals (including hardware and cutlery)	19,956,965	Coal	4,710,293
Railway plant and rolling stock	7,565,035	Liquors (wines, beer, and spirits)	4,674,590
Sills, raw and manufactured	6,591,444	Provisions	4,290,773
Sugar	5,269,139	Apparel	3,734,135
		Machinery and millwork	3,569,591
		Oil (mainly kerosene)	3,460,067

Principal articles of merchandise exported during the same period.

Articles.	Value.	Articles.	Value.
Animals, living	$362,443	Oils	$1,424,026
Articles of food and drink	88,955,938	Raw materials and unmanufactured articles	11,246,352
Metals and manufactures of metals including hardware and cutlery	165,329	Articles manufactured and unmanufactured	31,405,879
Chemicals, drugs, medicines, narcotics, and dyeing materials, &c	55,856,061		

SHIPPING.

Total number and tonnage of the shipping which entered and cleared at Indian ports from and to foreign countries during each of the last five years.

Years.	Number.	Tons.	Average tonnage.
1881–'82	12,742	7,368,886	578
1882–'83	11,715	7,071,884	604
1883–'84	11,662	7,250,603	622
1884–'85	10,338	6,649,770	643
1885–'86	10,562	7,294,589	691

The figures for vessels entered and cleared, which are given together in the foregoing table, are shown separately in the following table:

Years.	Entered.		Cleared.	
	No.	*Tons.*	*No.*	*Tons.*
1881–'82	6,460	3,632,248	6,282	3,736,638
1882–'83	5,864	3,538,878	5,851	3,533,006
1883–'84	5,812	3,632,305	5,850	3,618,298
1884–'85	5,150	3,291,009	5,188	3,358,761
1885–'86	5,253	3,640,687	5,309	3,653,902

These tables include sailing vessels as well as steamers.

The following table of steamers shows the progress made during the past five years in the substitution of steamers for sailing vessels in the carrying trade between India and other countries:

Years.	Steamers entered.		Steamers cleared.	
	No.	*Tons.*	*No.*	*Tons.*
1881–'82	1,829	2,263,604	1,859	2,310,372
1882–'83	1,550	2,050,515	1,544	2,050,459
1883–'84	1,620	2,294,310	1,603	2,277,232
1884–'85	1,495	2,157,501	1,489	2,174,680
1885–'86	1,631	2,361,942	1,632	2,397,828

Vessels under British and British Indian registry.

Years.	British.			British Indian.		
	Vessels.	Tons.	Average tonnage.	Vessels.	Tons.	Average tonnage.
1881–'82	4,861	5,856,677	1,205	2,868	411,400	143
1882–'83	5,257	5,306,770	1,261	2,525	361,189	143
1883–'84	4,196	5,508,676	1,327	2,601	347,849	134
1884–'85	3,791	5,208,966	1,374	2,345	267,326	123
1885–'86	4,136	5,770,169	1,395	2,198	304,544	139

Number and tonnage of the shipping of the principal nationalities other than British engaged in the trade, 1881 *to* 1886.

Nationalities.	1881–'82.		1882–'83.		1883–'84.		1884–'85.		1885–'86.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
Austrian	86	112,235	97	138,215	89	130,071	78	136,942	78	137,846
Belgian	16	20,281	3	3,551	12	15,928	2	2,646	.....	.....
Dutch	13	9,699	5	7,655	39	42,241	92	95,846	127	150,060
French	226	140,843	219	191,084	231	286,683	188	212,039	170	176,835
German	124	112,329	238	213,495	178	163,081	156	160,771	200	205,629
Italian	247	230,643	281	281,454	217	248,608	107	143,904	126	164,788
Norwegian	80	74,544	130	107,538	74	67,248	75	63,402	78	63,541
Russian	12	12,502	17	13,512	11	10,275	3	2,628	2	798
	19	8,988	36	21,045	34	18,728	10	4,069	21	11,480
			73	85,452	44	52,033	52	64,538	45	55,236
						102,393	663	102,215	597	92,712
									9	5,070

CUSTOMS REVENUE.

The gross sum received on imports since 1882–'83, in the beginning of which year the import duties were abolished on all articles but salt and those shown below, was as follows:

Articles.	1882–'83.	1883–'84.	1884–'85.	1885–'86.
Arms and ammunition	$39, 145	$52, 921	$53, 978	$60, 746
Malt liquor	26, 255	28, 287	23, 792	29, 261
Spirits	1, 273, 046	1, 278, 756	1, 241, 973	1, 307, 068
Wines, liquors, &c	204, 089	205, 528	178, 768	169, 060
Opium	1, 009	753	1, 030	1, 060
Imports by post, &c	8, 434	6, 089	202	475
Total gross revenue	1, 550, 978	1, 572, 334	1, 499, 743	1, 567, 616
Total net revenue	1, 474, 529	1, 552, 371	1, 474, 422	1, 535, 584

N. B.—Salt is excluded from these figures.

Export revenue for the same years.

Years.	Gross.	Net.
1882–'83	$2, 996, 323	$2, 911, 688
1883–'84	2, 588, 644	2, 507, 655
1884–'85	2, 218, 216	2, 054, 300
1885–'86	2, 677, 837	2, 619, 461

This revenue is practically all derived from rice, the trade in which revived after two very unfortunate years.

GOLD AND SILVER COIN AND BULLION.

Imports and exports of gold during the last five years.

Years.	Imports.	Exports.	Balance net imports.
1881–'82	$17, 483, 011	$44, 668	$17, 438, 343
1882–'83	18, 342, 487	581, 350	17, 761, 137
1883–'84	19, 690, 044	25, 026	19, 665, 018
1884–'85	17, 201, 420	382, 449	16, 881, 971
1885–'86	11, 129, 547	1, 182, 982	9, 946, 565

While gold has been leaving the country, or at least coming to it in greatly reduced quantity, silver, on the other hand, was imported in larger and exported in smaller quantity than at any time.

Imports and exports of silver.

Years.	Imports.	Exports.	Net imports.
1881–'82	$23, 279, 000	$3, 914, 420	$19,364, 580
1882–'83	30, 088, 878	3, 160, 061	26, 928, 817
1883–'84	26, 670, 623	3, 612, 079	23, 058, 544
1884–'85	32, 796, 091	6, 711, 818	26, 084, 273
1885–'86	34, 590, 535	2, 806, 673	31, 783, 862

CEYLON.

Report of Consul Morey.

ECONOMY.

The 30th of June, 1886, marked the close of an uneventful fiscal year in Ceylon, during which no new reproductive public works were undertaken, though great efforts were made to reduce to a minimum the expenses of what might be called the unfixed establishments. The maintenance of roads and working expenses of railways were especially subjected to an economical regimen, which, it is greatly to be hoped, will not seriously affect their future efficiency. It is proper to state, though, in this connection, that there is much discontent, and many anxious forebodings are constantly expressed on account of what is called the make-shift plan of "surface patching" in the repairing of roads, in lieu of the old system of thoroughly reconstructing them once a year on the McAdam principle. No doubt there was room for economy in both of the above-named branches of public expenditure, for the cart traffic on roads has, owing largely to the construction of railways, diminished so considerably that the wear and tear of highways is more cheaply repaired now than formerly, and the diminishing traffic by railways gives an opportunity for a reduction of the somewhat lavish expenditure prevailing in that department in more prosperous times.

Though practicing a rigid and probably judicious economy in nearly every branch of public expenditure, the government has nevertheless wisely and liberally persevered in the restoration of those ancient irrigation works, of almost prehistoric antiquity, and undoubted usefulness.

IRRIGATION WORKS.

These, from various causes too numerous for enumeration here, had long since fallen into decay, and their very neighborhoods, once the homes of vast populations, the sites of grand cities, the seats of art and science, and the scene of a prosperous agriculture, had become, from abandonment and the naturally rapid progress of tropical growth on the one hand and decay on the other, comparatively uninhabited and pestilential localities.

To restore these great reservoirs and canals to a condition to contain and distribute in the dry season sufficient water to irrigate the many thousand acres of rich land, forming principally the magnificent park-like country known as the Nuwara Kalawiya and Tamankada districts, has been a set purpose in the minds of at least the latest two British governors of Ceylon, viz: Sir James Longden and Sir Arthur Gordon. [illegible] wise and humane a scheme, however, these [illegible] their fellow coun-

in the dim past, when the natives of England were comparatively savages, was the home of civilization and progress and a tempting bourne to greedy marauding invaders from Asia and Africa, to which they repeatedly came for purposes of plunder, and, impelled probably by religious hatred, subjected the fairest land on the face of the earth to devastation, was restored, under British rule, to something like its former grandeur and usefulness.

Already, under a system of restoration, abundance has begun to prevail where an eighth of a century ago the greatest scarcity existed, and population is being rapidly drawn towards these once neglected districts. Paddy (unhulled rice), the favorite food of all Eastern people, which was hardly to be got there prior to 1880, is now so abundant that it may be purchased at Anuradhapura, in crop time, for ten cents per bushel, the same article selling meantime in Colombo for never less than forty cents, generally at fifty cents, per bushel; a difference in price owing entirely to the cost of transport, which can only be overcome by the construction of a railway—a project, by the way, fraught with no great engineering difficulties, nor considerations of excessive expenditure, and which the government now has in serious contemplation.

CONDITION OF THE COUNTRY AND PEOPLE.

During the year under report the condition of the country generally was good. There were neither floods nor droughts, famines nor epidemics. The old promise of "seed time and harvest" was fairly fulfilled, and most of the inhabitants were in the enjoyment of ordinary comforts, more so, perhaps, than was the case ten to fifteen years ago, when many people were wallowing in fictitious wealth, whilst others were starving. That was an unwholesome period; for values were so inflated that borrowers could and did obtain loans, on real-estate security, of immoderate sums of money, which was either reinvested alike immoderately or spent lavishly. As a consequence, when the period of depreciation came—probably reaching its lowest level in 1884–'85—much money was lost to circulation from the fact that about all the revenue accruing from the nominal ownership of real estate was absorbed in the payment of taxes, cost of upkeep, and interest on an excessive amount of borrowed money, which itself had also gone out of circulation.

Thus was created a terrible depression, especially within municipalities where the taxes had been levied on the basis of an immoderate valuation, and rated exceptionally high, too, to cover and provide for the cost of extravagant schemes (including the introduction of gas and water into towns), which it was considered the country was richly able to afford on a large and generous scale.

Mortgaged properties were especially afflicted by this excessive taxation, for their owners, after the fall in values occurred, could not easily pay taxes themselves, nor—as is mostly the custom here—get tenants to pay rent and taxes too. The selling of such property was also more or less retarded, and the value depreciated, from prudent would-be purchasers standing aloof and refraining from buying pending a moderation of the tax system.

Such a modification is being slowly accomplished now, and the value

famishing. This, however, was denied by respectable people in the neighborhood, and whatever want was actually prevailing, the government, I believe, attended to and saw it properly relieved.

The condition of the European community has certainly greatly improved since last year, owing to, mostly, the establishment of the planting industry on the firm foundation of a system of various products; amongst which, tea and cinchona are succeeding extremely well. The health and general contentment of the people have also been good, though the population cannot be said to have largely increased. There is, however, a marked increase in the annals of crime, principally with respect to thieving, which is becoming very prevalent, owing, it is said, to an absence of any deterrent effect on crime in the prison system; the general belief being that prisoners are too mildly treated, or, what is worse, are even pampered in the jails. I, myself, have heard discharged convicts repeatedly say that they had been much better fed in jail than they ever were outside of it, and this might easily be in a country where such men only earn 10 rupees ($4) per month by honest labor and board themselves.

REVENUE AND EXPENDITURE.

The revenue for 1885 was $5,060,345, gold, or $6,325,431 in silver; and the expenditure was $5,044,483, gold, showing an excess of revenue over expenditure of $15,862, gold. Of this revenue $1,142,819 was derived from customs receipts, to which we may add $193,200 Colombo harbor dues, making $1,342,019; or nearly one-third of the total revenue a product of the foreign trade and commerce of the island. Railway receipts yielded $1,047,171, and licenses, principally to distill and sell arrack, rum, and toddy, $572,274. Land revenue, *i. e.*, principally a tax on grain grown in the country, yielded $417,375, and stamps, exclusive of postage, yielded $420,237.

What amount was derived from postage-stamps and other post-office receipts is not clearly stated in the government schedule, but it ought to be considerable; since the inland rates of postage are about the largest of any civilized country in the world, and the foreign, or beyond-sea, postage exactions, the maximum amount, I believe, allowed by the Postal Union rules. Notwithstanding the last-named fact, Ceylon is the worst-served country in the East with respect to ocean-carried mails; for, whereas, the Imperial Government of Great Britain, in contracting with the Peninsular and Oriental Steam Navigation Company for the conveyance of mails to India, demands a speed of 12 knots per hour between Suez and Bombay, it is content with 11 knots per hour between Aden and Ceylon. Consequently, it is not uncommon for letters addressed to Ceylon, from America or Europe, when missent in the Indian mail, to arrive at Colombo via Bombay one day in advance of letters of same date sent by the regular steamer to Ceylon.

Twenty years ago the revenue was $3,851,486 and the expenditure [illegible] showing a saving of $180,806; and he would be a bold man [illegible] less efficiently conducted in

FINANCE.

Financiering in Ceylon has now become a veritable puzzle. The fluctuations in value of the local currency have been constant and rapid, generally $\frac{1}{32}$ of a penny up one day and $\frac{2}{32}$ down the next, until the present value of a rupee is about 1*s.* 4*d.* This creates much mischief in the import trade by daily altering the value of foreign commodities, and inflicts hardships on family remitters, who are numerous, owing to the fact that the wives and children of many government servants, likewise of local merchants, reside mostly in Europe, and have to be supplied with funds from Ceylon. An unwholesome element of gambling is likewise introduced into the export trade, and a spirit of recklessness engendered not at all consonant with true commercial principles.

AGRICULTURE.

There is a steady improvement in agriculture throughout the island. The natives are growing more grain and the Europeans a greater variety of products than formerly. The demand for foreign farming implements, especially plows, so prevalent two years ago, has, however, about ceased, and will probably be inconsiderable for some time hereafter. Native cultivators are better satisfied with some primitive implement they can make and mend themselves, and after use cast aside carelessly, with which to scratch the ground, than with an elaborate and costly utensil, the very care of which, when out of use, would either be neglected or considered by them an intolerable burden. It is a mistake, therefore, to expect them to patronize largely farming implements the first cost of which would generally be beyond their means, and the use of which would force them into new methods of cultivation, which they do not desire to adopt.

In my judgment, the direction in which these people's minds should be turned for improvement is the protection and preparation of their fields for harvest with the appliances already at hand. It is common enough here for people living and owning land near small rivers to vainly sow grain for two or three years in succession, upon the chance of the season proving sufficiently dry to obviate the flooding of the land and destruction of the crop by an overflow of the river. A native Goya tells me, that sometimes not more than two in five of such sowings resuit in a harvest, and yet an easily constructed embankment or levee along the river front would effectually protect such land from inundation and render sucessful crops almost a surety.

To me it seems perfectly natural that a people who adopt such indifferent modes of husbandry should remain content to plow the land they so carelessly sow, with a pointed stick drawn by a cow; and until a more provident system of cultivation is taught them, their present implements, undoubtedly, are exactly what they require.

IMPORTS AND EXPORTS.

The imports for the calendar year of 1885 were valued at $17,052,935. Nearly two millions, say $1,720,000, included in the above aggregate was for coal and coke, imported mostly to supply the

the balance, consisting of almost of every known commodity, came from all parts of the world, though England may be credited with fully eight-tenths of it.

The declared exports for the same period were valued at $14,312,962, say about one million in excess of those of 1884; and by adding to this sum the value of gems deported from the country, say $1,000,000, and $1,500,000 worth of coal re-exported, we have the balance of trade slightly in favor of exports, which is a happy consummation.

The principal articles of export were coffee, cacao, cinnamon, cinchona, coir, cardamoms, copra, cocoanut oil, essential oils, plumbago, and tea, which, together with other miscellaneous products, are fully scheduled in an accompanying table.

MINES.

Mining operations have languished throughout the year under report; the principal products of that industry, viz, plumbago and gems, having been in diminished demand abroad. There is also a report of local scarcity of these articles, owing to exhaustion of old fields and the enhanced impediments to labor, caused by a somewhat wet season. My own idea, however, is, that ready means for overcoming all such causes of local scarcity would be found were there to arise a brisk foreign demand for our gems and plumbago.

COMMERCE.

The navigation actually entering and clearing from the various custom-houses was, inward, 3,123 steamers and sailing vessels, reporting 2,000,878 tons, and outward, 3,145 steamers and sailing vessels, reporting 1,990,492 tons. Total, 3,991,372 tons, which might probably be increased to 6,000,000 tons by adding thereto the very large amount of tonnage calling and reporting only for coals, orders, and passengers.

Nearly nine-tenths of the total tonnage was represented by steamers and over seven-eighths of the whole was under the British flag. The contributions from other nations were, with respect to tonnage, in the following order, viz: France, Austria, Holland, Germany, Italy, Norway, Russia, Spain, United States, and Maldive Islands; the last two countries remaining as last year, singular with respect to the motive power of their vessels, all of which were sailers, whereas most of the ships of other nations were propelled by steam.

Germany will probably run France pretty close for tonnage here in the near future, as the North German Lloyd has now perfected its arrangements for dispatching its steamers to the far East and Australia. By this new service, at least five steamers, over 3,000 tons burden each, will call here *en route* to and from the far East regularly; but at present it appears the Australian line will not touch here, their route being from Bremerhaven to Antwerp, Port Said, Suez, Aden, Maldive, Adelaide, Melbourne, and Sydney. From Sydney a branch and Samoan Islands.

gentleman sends more of the last-named article to America than all the other merchants here put together, and his countrymen are very large importers, both from the continent of Europe and Great Britain, also from India.

The local market, in fact, is beginning to abound in German goods, especially tools, which are sold at marvelously low prices.

TRADE WITH THE UNITED STATES.

There was a falling off in trade with the United States during the year, the imports direct having amounted to only $22,028, and the exports to $835,970, whereas in 1884 they were $39.408 and $942,537, respectively. The imports were 15,431 cases kerosene oil and 1,546 pounds cordage.

There were also 33,000 cases of American kerosene from India, value $48,293, making the total of this commodity 48,431 cases; value, $70,221. This amount will, however, be greatly increased in 1886, as the imports to date, viz, September 30, are 93,650 packages, valued at $136,155. About 64,536 pounds of American manufactured tobacco, valued at $20,200, came from Great Britain and India, and 118 cwt. of salt beef and pork (American), valued at $2,128, came from England. I trace also some bacon, cotton goods, and clocks to an American origin, and conclude, upon the whole, that about $100,000 worth of our goods were, directly and indirectly, imported during 1885, which is a poor showing.

The exports to the United States were valued at $835.970, showing a decrease from the previous year of $106,567. This is more than accounted for by the falling off in plumbago, which in the previous year amounted to $376,500; whereas in 1885 it was only $219,563.

The shipments of cocoanut oil, amounting to $450,000, were the same as in the previous year. Such was likewise the case with respect to essential oils; but there was an increase in the value of coir yarn and fiber of $11,368, the total shipment of that article having amounted in value to $30,373.*

W. MOREY,
Consul.

UNITED STATES CONSULATE,
Colombo, October 1, 1886.

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*The statistics contained in the above and foregoing were obtained from the undernoted departments, to the responsible officers of which I am deeply indebted for much courtesy, viz: colonial secretariat, customs department, master attendants (Colombo and Galle), government printer, and Ceylon Chamber of Commerce.—W. M.

STRAITS SETTLEMENTS.

Report of Consul Studer.

When, in May last year, I left my post of duty to enjoy for a few months a much-needed leave of absence and recuperation, the state of local trade and commerce, considering the steadily growing depression of the local silver legal-tender currency, was on the whole pretty fair, and it was thought that silver had gone down as far as it would go (the silver dollar then was quoted at 3*s.* 6*d.* sterling) and hoped that a rise in its value would no doubt take place. This hope was based chiefly on our own national legislature, *i. e.*, that it would provide by statute for a continued and increased coinage of silver dollars. This expectation was not realized and when I returned to my post in February, I found a general depression, in some respects almost a stagnation, in trade; that is to say, export, of the usual articles of Straits produce, being in the main necessities of life, continued about as usual or even with increasing tendency, but in imports, well established and indispensable articles excepted, there was almost a stagnation, and this state has continued to this day.

And what, will one ask, might have been the principal cause of this depression in commerce? To my mind's eye the answer is not difficult. First, let it be remembered that a monometallism of silver exists throughout British India and British Crown colonies of India, of the rupee, and in this colony of the dollar. The Mexican, Japanese, Hong-Kong, and the (in our country defunct) American trade dollar are legal tender for all debts public and private. All goods imported from Europe and the United States and all countries having a gold standard or a bimetallism of gold and silver have to be paid for as per invoice in gold (sterling, United States currency, marks, francs, &c.), at the ruling rates of exchange, or, better said, quotations of silver established by the banks. The equivalent of a dollar in gold is about 4*s.* 2*d.* sterling. The local silver dollar was worth that much fully when I first came here in 1871 (and until about 1873–'74) and trade flourished; the laborer and employé knew that wages paid them were as good as gold, dollar for dollar. The importer in making prices for the sale of his imports had a reliable standard to go by; it was not a fictitious or hazardous valuation, as now it is and, in a measure, must be to be safe. If his invoice called for £1,000 sterling, he could buy a draft for that amount, payable on demand, at the rate of 4*s.* 2*d.* per dollar, silver (or get a little more whenever there happened to be a dearth of silver dollars in the market), add a reasonable profit to the invoiced price and put the goods in the market, and the purchaser or consumer could buy with his dollar 4*s.* 2*d.* worth. The laborer, servant, mechanic, or employé in earning a fixed amount month or year, had the satisfaction to know that the [illegible] in value. It was just [illegible]backs

ket (none being coined here) and by the London silver market (this market ruled like a rod of iron, the local colonial and the home Government not interfering), until, on my return from leave in February last, it had gone down to 3*s.* 4½*d.*, and, since then, it continued going down until at one time, not long ago, it had reached 3*s.* sterling (72 cents, gold). Then it "picked up" a trifle, gradually, by ¼*d.* and ½*d.*, so as to be about 2*d.* higher.

This shown, I want to next show what, in my opinion (the public press does not mention it and it knows why!), brought on the depression of trade. If the colonial government had enacted a law to the effect that while this uncertain state of fluctuating currency lasted, all employers (the government making the beginning), taking the standard of 4*s.* 2*d.* per dollar, should pay the employed the difference in value between gold and silver, added to the stipulated wages in silver (for instance, a laborer hired at $6 per month to receive at the end of it, in addition, the difference between the ruling rate of sterling exchange and 4*s.* 2*d.*, say the difference between 3*s.* 4*d.* sterling, 80 cents gold, and 4*s.* 2*d.* sterling, $1 gold, which would make for $6, $1.20 or $7.20 silver for the month), all would have been well and trade would have flourished as usual. This was not done for the public generally, but was done for persons in the British national service receiving their pay in sterling (army and navy and certain civil employés), who had payments in silver made to them charged to them, approximately, at current sterling exchange bank valuation. The mass of native laboring population (coolies, house servants, coachmen, gardeners, boatmen, artisans, and native employés, clerical and otherwise) experienced only in rare instances improvement in wages; indispensable or old faithful servants, for instance, or upon grounds of an employer's charitable feelings.

The usual rate of native laborers' wages, artisans and clerks not included, before the value of the silver dollar depreciated, was in 1874 on an average about $6 per month, food not included, and continued to be about the same to this day. Persons paid higher wages fared at about the same ratio. At that time the necessities of life of the native laboring masses, no matter what they consisted of, were ever so much lower than they got to be through the overawing difference between gold and silver; the people lived much better, were happier, and could afford to dress better and appear to better advantage than they do now (to me and others at least). Native traders in very nearly all articles of necessaries of life (fruits and vegetables to some extent excepted) charged, as well as they could and dared, the difference between gold and silver in their dealings with natives (and most assuredly with the European residents, full difference). Owners of houses raised the rent to all classes alike, about pro rata of station (getting all they can consistently); and now as to goods imported from Europe, America, &c., as the invoices for the same called for payments in gold strictly, the difference between gold and silver in placing them in the market had to be added at existing exchange rate, with an allowance for downward fluctuations, together with the profit to be earned.

The textile fabrics mostly in vogue with the natives, both sexes, and indispensable to them, consisted of bleached and unbleached muslins, sheetings, drills, prints, sarangs, handkerchiefs, and a few

necessary food for himself and family, if he had the latter, out of his depreciated wages (the average loss from 1874 when depreciation commenced to this day on a dollar, silver, I may safely put down at 15 per cent.), and devote the scanty balance to the payment of house rent and clothes, if any was left, to that which was strictly and absolutely necessary. Such a state of affairs, as may be easily guessed, has the tendency of forcing people to run more or less in debt, regardless of frugality and saving. The native laborer or employé, when he stands in dire need of money, if he cannot get it from friends, must get it from the native money-lender, prominently the Chitty, a Hindoo caste; and of all the rapacious usurers and hawks anywhere in existence, I believe he has not his equal. (I have in former reports devoted space to that worthy, and will not repeat what I said.) When once in that fellow's clutches, "he cannot contribute much to the trade of the port." But I must mention it, because an unusually large number of native people, with steadily increasing tendency since the silver depreciation set in, became involved in debt, the majority of them hopelessly; and besides, the pawnbrokers were reaping a rich harvest. (The latter is a licensed institution here. What next?) Just this, that when a large proportion of consuming debtors cannot pay their creditor, the small trader or hawker, he is driven to the wall—collapses; and when retail traders cannot pay the jobber or "middle trader," as we call him here, and leave poor or no assets, he, in turn, cannot pay the importer—the European firm that sold him on credit—and has to go into bankruptcy, and his creditors must be satisfied with what the court finds to accord to them. The latter—the European—may get over it, but it hurts him; it does not build up, and he generally prefers to say very little about it.

There have been many bankruptcies of middle traders, some for very large sums, of late years; among them men (mostly Chinamen) who were believed to be very wealthy and safe. The credit system is forced to draw its coils constantly tighter; money is close and commands a high rate of interest in discounts of well indorsed or strongly secured documents at the banks at from 10 to 12 per cent. Enterprises to a great extent are stifled—much talked about, but amount to little or come to nothing. A few years ago when times were good and money plenty and easy, and the native population from all parts of the East increased, real estate went up and a great many houses were built, finding then ready takers. Visiting to-day the native quarters and suburbs, especially new streets, opened and graded a few years ago, and lined with good new houses, one finds an unusually large percentage of them unoccupied—closed up—a sure sign of bad, depressed times.

With an impoverished native population of hundreds upon thousands of people groaning under the weight of poor wages, dearer food, and a depreciated silver currency, received under the circumstances above alluded to, battling with life as they do, and exacting land-laws as well; with a monometallism of silver uncontrolled by the government, and, so to say, only by London quotations and the local banks (chartered banks), with a European war falling like a wet blanket over

the auctioneer to be sold under the hammer, for the natives would not buy them.

In former years Europeans and natives following Western civilization used to be sumptuous in comparison with present times and buy things that now find but few buyers. Those were the times of great bargains, good profits, plenty of money, of well-to-do, generous hospitality, with refinement and displays regardless of cost. As I look back, the present appears to me to be the mere shadow of those times, and yet the cost of living is ever so much higher than then. The native masses deserve great credit for remaining so quiet and law-abiding, for holding out so patiently in more or less wretchedness in the hope of better times and "bigger silver." A strike, such as we hear of or meet with in our country, is a thing unknown here, and only "miniature strikes" by house servants, gardeners, and plantation coolies, when they think they have become so indispensable to their master as to command 50 cents or $1 more per month, and they, as a rule, end harmlessly and satisfactory to both parties.

But, will one ask, if there are no strikes, do bad times not breed crime? Yes, they do, whether caused by depreciation of silver, monometalism, or anything else. Some years ago the old prison, occupying a large space of ground (three or four acres, I think) in the heart of the town, on rather low-lying, level land, was not only found unhealthy (became so in the course of time), but too small in view of the increasing number of convicts and the fast increasing population, and a new prison, with larger, better, and stronger buildings, on a larger and higher lying piece of ground, was built and occupied about three years ago. It stands on an isolated piece of high ground, presenting a fine, commanding appearance, looking from a distance like a town by itself. It was then thought that this would answer the requirements for many years to come, and in point of strength and interior arrangements I believe it does answer, but not in that of size, for it is now pretty full, and so alarmingly many convictions take place constantly that it is already now feared that it will soon be too small. The majority of the convicts are Chinamen of the lower classes (laborers), convicted chiefly for theft, also housebreaking, cheating, and more serious crimes. My opinion, based upon long experience and a very fair knowledge of the place and population, is, that bad times, want, hunger drive a good half of the convicts to jail; that many offend against the laws in order to be convicted and sent to a place where they are sure to get their daily bread for a time. Stripes with a rattan, as proposed in the colonial legislature, to deter Chinamen from becoming convicts and thereby to reduce public expense, might have that effect in a measure. But many of the convicts are opium-smokers and beggars (*i. e.*, incredibly poor, if not beggars) at the same time; and as the Government farms out the right to sell opium in the colony, deriving therefrom the largest revenue, it must after all find it natural, if the number of convicts is on the increase and rattan stripes wouldn't cure the mad cravings of a confirmed opium-smoker. The drug is very dear, and when a poor laborer given to the vice of opium smoking must find the drug, and food, clothing, and an abode in which to live out of from six to eight dollars per month, something or some one has to suffer for it.

pointed out in about all of my commercial reports to the Department since 1871, there is not a single American firm in the colony of the Straits Settlements, so that such of our merchants and manufacturers as are anxious to introduce and establish a market here for their products must trust to local European firms to be their agents. Now these firms, as I have repeatedly reported, will, upon receipt of catalogues and price-lists, buy nothing outright, send no order, but the majority of them are willing to receive consignments to try the market and report results, and if they can report that an article found favor and is in demand, they may send an order at the same time, or else explain that it cannot be sold and why. Now, some firms are much better than other firms (some by great odds) for introducing new goods; and therefore if a merchant at home desirous of introducing his products out here has no reliable local correspondent, he had better write to the consul and request him to put him in communication with one or more firms, and otherwise give him desirable information. Now, I can say in truth that I have answered during my long residence here a great number of such letters, and in many instances answered and advised to send out a small trial consignment to a firm that appeared to me commendable, and that in a few instances my advice was followed and generally resulted in creating orders.

This not sending trial consignments, when advised to do so, is a mistake, and the consul's time, labor and postage, burdened as he is with multifarious and laborious duties, is thrown away. Some of them wrote that if they could consign to the consul himself they would do so; and where a consular officer is allowed to trade and is an American citizen, it would, no doubt, be the correct thing to do; but where he is not, he is not allowed to be an *agent*, nor any one for him, and it is well he should not be, since it would reduce his influence and standing.

Under existing circumstances, as stated, the United States have not fared badly in imports here, and, fortunately, were some of the articles indispensable ones, hardly to be got along without in any household, however humble.

To ascertain what was imported from the United States directly and credited to the same, I have to rely, petroleum excepted, entirely on the trade statistics of the ports of this colony published by the colonial government with the Blue Book for each year. Formerly a part (so set apart) in the Blue Book itself was devoted to the trade statistics of all the ports of the colony, but this was changed for 1884 and 1885, *i. e.*, the Blue Book was published first, and, strange to say, the "trade statistics," the most valuable part of it, nearly two months later. This really annoyed me, because I could not write my report before I had the statistics. In 1885, at the time the Blue Book and statistics for 1884 were published, I was absent on leave, and this year I did not receive the Blue Book for 1885 before August 25, and the trade statistics I could not obtain until fully six weeks later. Such a delay experienced in previous years, and it prevented me from pre- report (*i. e.*, this) at a much earlier [illegible] many

sooner than to me and my consular colleagues; so that it cannot be said that a line was drawn between them and this consulate.

Without being a merchant or a member of the chamber of commerce, I cannot obtain the daily abstracts of exports, imports, and navigation prepared by the secretary thereof and issued to the members. But if I could, there would, in point of correctness and reliability, nothing be gained by them over the annual statistics gratuitously furnished me by the colonial government, since the chamber of commerce prepares its statistics from printed sheets or abstracts daily furnished from the bureaus of exports and imports of the port; and the latter receive the statements of exports and imports from the merchants, European and native, themselves as soon as effected (supposed so, at least); and it is pretty well understood here among men of business that these statements in point of distinction, whence obtained, valuations, &c., are not always reliable; so that, after all, the mercantile community is no better off than the government itself and the consuls. The trade statistics once received I cannot prepare my report, statistics, comparative tables, &c., including writing it and copying it by hand at once, to the exclusion of all other consular duties of a fixed nature, and as they crop up from day to day. There are ships' duties of variegated character which absorb much of one's time; the relief of seamen, keeping the records and accounts, correspondence, the verification of triplicate consular invoices of exports to the United States, and of landing certificates, preparing returns, and accounts, &c., *ad infinitum*, so that it is only in pauses, by piecemeals, that I can prepare the report. And in such an exceedingly important, trade center and transshipment emporium as Singapore is, there is naturally much of great interest to mention in a commercial report for a year if the consul wants to be conscientious in the discharge of his duties.

In the preparation of such a report one should be as little disturbed as possible, should be able to set apart at least three hours, with no interruption, per diem until it is finished. This is an utter impossibility here, because I have no deputy consul, and no allowance for one, and only an allowance that enables me to have a copying clerk. The consequence is, it takes much time to prepare and complete such a report, and it is utterly impossible for me to say, when taking the work in hand, in how much time I can finish and forward it. I can only say, and this most conscientiously, that I do the best I can to make it that which I think it should be and to forward it as soon as possible. In asserting this I must repeat and point out that the commerce of the United States, though it cannot be gathered from the unreliable trade statistics of the port, is surely (no sensible informed merchant here in good standing will deny it) next in importance to that of Great Britain in this port. And, in the face of that fact, and the meager assistance at my command, I must request indulgence if my report arrives late and fails in any respect short of expectations. There is much to be said in regard to what I have pointed out, but as I made all explanations I thought necessary in my dispatch of November 5, 1884, I will not repeat them here.

I just said (and in nearly all of my annual reports) that the trade statistics of the port were not reliable

trade statistics of the port are compiled, they credit the port or country from which as per bill of lading or manifest the goods were shipped to this colony. Thus, if, for instance, a party in New York ships a consignment of goods to a firm via Liverpool or London, the goods being transshipped there, Great Britain is credited under imports where from, and not the United States. The same is true of goods imported from San Francisco. There is no direct steamship communication between that and this port; steamers go no farther than Hong-Kong, and that part of their cargo which is destined for this port is transshipped there, and thus Hong-Kong, and not San Francisco, is shown to be the port whence imported. The trade statistics are thus very misleading to any one seeking reliable information or commercial instruction as to how much any country, not only our own, contributes to the commerce of Singapore and Penang in imports and exports. I feel morally certain that the imports shown in the said statistics as from the United States are in reality about one-half of the amount total.

To show at a glance the imports from the United States at Singapore and Penang for the years 1884 and 1885, I have extracted them from the trade statistics and condensed them into a statistical table, which I inclose herewith, marked A. This speaks for itself. It will be seen that the chief article of America, imports has been (and still is) petroleum. For 1884 it shows for Singapore the handsome sum of $629,936, and for 1885 (a little less), $589,926; for Penang in 1884, $193,559; 1885, $314,553; total in two years, $1,727,974.

For Singapore the aggregate of all imports in 1884 is shown to be $645,863, and for 1885, $1,129,135; for Penang in 1884, $196,709; for 1885, $322,470; total for both ports in 1884 and 1885, $2,294,177.

It will be seen in Table A, for Singapore, that, as per port statistics, silver coins to the amount of $516,000 were imported from the Pacific coast. This can hardly be regarded as merchandise, though, no doubt, in one sense it was. I strongly suspect that these coins consisted essentially of American trade dollars, which pass in this colony as legal tender, if they do not at home. They became such about ten years ago, when they strongly circulated in this colony and several neighboring countries, as well as in China. They gradually went out of circulation from about 1881 to 1885, when all at once they circulated again numerously among other dollars current here until about three months ago, when they again, as if by magic, disappeared. Deducting this import of silver coins of $516,000, from the sum total for imports of 1884 and 1885, viz, $2,294,177, it leaves a net for merchandise strictly for the ports of Singapore and Penang of $1,778,177; and, again, deducting the sum total of petroleum imported at both ports, viz, $1,727,974, it leaves for all other imports for the same period only $50,203.

This upon first sight appears to be a small amount for two years' imports of American goods. It should be so regarded if this were the actual true amount. At the same time, I may say, that as we have no American merchants here it need not be expected that in the main merchants would neglect the commercial interests [illegible] countries. The fact is,

There is an item of apparel, $450. This, I think, must have been a sample sending, or else the private effects of some person or party traveling, and entered under the name of apparel on the ship's manifest, and sent here to await the arrival of the owner, and stated to be worth (in case of loss or damage *en route*) the said amount. I reason thus, because I fear that our country in the main cannot compete successfully with Europe in articles of apparel, some specialties perhaps excepted; and, besides, the demand for ready-made apparel is very limited here in view of the comparatively small European or Christian population. Nearly all, if not all, Europeans and Eurasians have their apparel made to order mostly by Chinese tailors, and the natives prepare their own apparel, such as they are used to as a race, without the need of much skill, latest fashion plates or journals, &c., and some of them require very little of it in this extreme tropical climate.

ARMS AND AMMUNITION.

Some of our magazine and other rifles found favor here among planters, sportsmen, and people dwelling in or near the jungle, and were imported, with the ammunition fitting them, in suitable quantities. I think that in this instance the trade statistics give the actual invoice value of said goods, and statement as directly imported, because a good deal of vigilance is exercised in imports of arms and ammunition of any kind and from anywhere, and exports of the same to all Netherlands India and other states not remote from here are interdicted as contraband of war by order of the Government. The importation of American arms, chiefly magazine rifles, I may say, commenced only about seven years ago. They found much favor, and the demand for them steadily increased, though not in large quantities, as the statistics indicate. But for political reasons, the sale thereof would be ever so much larger.

CLOCKS AND WATCHES.

As to clocks and watches, I think the statistics give approximately the true value of their importation. As the value of either is not stated respectively, I think I am safe in saying that it was in the main intended for clocks, though I heard over a year ago of some very cheap American watches being in the market. In former years American clocks had scarcely any competition from Europe, not only here, but in the East generally. But this is the case no longer, as both England and Germany are in the market now, though not to a very dangerous extent as yet. But for the reasons above stated, *i. e.*, bad times and "low silver," there is no great demand for such goods at present. What is wanted here essentially, as the natives must be chiefly looked to as consumers, is a cheap clock of pleasing shape and appearance (in this I think our manufacturers beat the world), which is a safe, reliable timekeeper at the same time.

COTTON GOODS.

In this important item I think the trade statistics are not correct, viz, that much more was imported in 1884 and 1885 than is admitted, notwithstanding that I have been informed by merchants here

But these goods are all shipped via England, and the United Kingdom appears under the caption "whence imported." The statistics show that at Singapore, in 1884, only $1,000, and in 1885 none, were imported; and at Penang, in 1884, $3,000 worth, and the same in 1885, were imported. This, I have reason to believe, is incorrect; that the importations, though not ponderous, were much larger, and that the demand from certain few firms will be constant. What the actual importations were I am unable to ascertain at present, because a certain amount of secrecy prevails in the premises. But I am satisfied to know that these importations continue.

In the Singapore statistics for 1885, $330 are shown for printed cotton goods. In this respect, I think, the statistics are correct and that this was a trial consignment. In a former full report to the Department on textile fabrics, I pointed out, with regard to this market, in which respects Europe has an advantage over the United States and what would be necessary to introduce bleached and cotton printed goods successfully in this part of the world. American unbleached drills and sheeting are still the best for the prices charged in the markets of the world.

As regards cotton goods, Upper India herself, with spinners at Calcutta, Bombay, and other points, commenced several years ago (with steady increase) to manufacture cotton goods (among them some very fine muslins) suitable to the demands of the local population, and is now turning out large quantities. Cotton is largely cultivated in Hither and Upper India. The most of it, I have been told, is short staple, but very strong, and I don't think they are turning out anywhere as good a cotton as our better grades of American cotton. But, in view of the immense area of British India, with a variety of soils and even climates and rainfalls, there is no telling what they may be able to do in future—in the course of time. At present they can successfully dispose of all the yarn and cloth they manufacture; the increasing number of factories proves this, and of course it goes at the same ratio against importations of certain cotton goods from England and continental Europe and perhaps our own country. Upper with Hither India, I may remark, though not within my district, is getting to be a manufacturing country not only of cotton, but of many other kinds of goods; and there is no reason why, with increasing education and civilization, the millions of cheap laborers, and the great and varied resources, among which, not only unexcelled wool, hair, and silk, but a great abundance of various kinds and most valuable fibers, &c., she should not become a manufacturing country, and thus be enabled to keep much of her capital at home and become more prosperous and great. The number of manufactories is steadily increasing, and some of them are turning out machinery, tools, and implements. India, under a careful, wise, and liberal administration, has a great future before her.

DRUGS AND MEDICINES.

I believe nearly correct, though some, I have [illegible] been credited

(rather large) proportion of the native population make, so to say, no use of them at all. That portion has its own doctors (?), herbs, oils, salves, roots, extracts, abominations, superstitions, witchcraft, &c., and dies happy in its belief.

Some of them do believe (cannot help to) that "the white man doctor" has a greater knowledge, especially in surgery, than their own; but "caste and religion" stand between him and their own "medicine man," with or without a priest. I have known of cases where dangerously or mortally injured natives (through accidents or murderous assaults), conveyed to the public Colonial Hospital by the police, were taken away by their relations, generally Islamites, as soon as they ascertained their whereabouts, to their own dwelling places (there to surely die, as a rule). But in cases of contagious or infectious diseases the government commands and takes the patient forcibly, if necessary, to the Colonial Hospital upon discovering the breaking out of such diseases, while in other diseases the natives are at liberty to pursue their own course as to medical or surgical treatment.

FRUITS, PRESERVED.

Of this kind of imports the Singapore statistics for 1884 report $3,701 worth from our country, but none for 1885; and for Penang *none* for either 1884 or 1885. This is all wrong, because the consumption of preserved fruits (chiefly peaches, apricots, plums (stone fruits), pears, apples, grapes, &c.) with American labels, in most cases, is very large, and almost any observer would know or could guess that $3,701 worth for two years in the entire colony, with the protected Malay states adjacent thereto and receiving all supplies from Singapore and Penang, is only a small proportion of the actual consumption. Both our Atlantic and Pacific coasts export preserved fruits. The former come via England, and the latter via Hong-Kong. Now, on consulting the trade statistics for importations of preserved fruits at Singapore and Penang during 1884 and 1885, I find, taking only important points, as follows:

Where and whence.	1884.	1885.
At Singapore:		
From China	$22,733	$14,318
From Hong-Kong	31,348	26,698
From Italy	325	.....
From France	2,138	2,724
From Germany	2,000	.....
From the United Kingdom	7,385	2,718
At Penang:		
From China	6,312	7,502
From Hong-Kong	28,194	41,151
From the United Kingdom	.....	1,197

Now, leaving out Italy, France, and Germany, about which the statistics probably report correctly, I will first turn to China and Hong-Kong. As regards China, I am aware that she exports certain preserved indigenous fruits, and that the population here consumes part of them, probably a goodly portion of the amounts shown for China in the foregoing, but my opinion is that a part thereof includes American fruits sent here from Shanghai; and as to Hong-Kong, I feel pretty certain

seen that more preserved fruits from Hong-Kong were imported at Penang than at Singapore, though the former is a much smaller place than the latter. I attribute this difference in favor of Penang to two reasons chiefly, viz: (1) The sale of fresh fruits locally grown and imported from Siam and China (as oranges, mangoes, &c., from Siam, and oranges and persimmons from China) is much larger and variegated here than at Penang; and (2) Penang, far more than Singapore, is the agent and factor of and purveyor to the planters, officials, and traders in Province Wellesley close by, and, adjoining the latter on the south side, the protected Malayan provinces of Larut and Perak with their very large mining population added, all on the peninsula of Malacca, and the numerous tobacco planters at Deli, Sumatra, with their assistants (the best customers of all); and last, but not least, Penang largely supplies the Dutch garrisons, war vessels, officials, and traders in Acheen, Sumatra, with nearly all the food they consume (beef, but only a part of all consumed there, as the Coromandel coast of Hither India (*i. e.*, the ports of Madras and Negapatam) supplies by direct steamers to Olehleb, Acheen, a prominent portion of it and all of it on the hoof, also from Penang). What holds good of preserved (*i. e.*, canned or bottled) fruits holds also good of other kinds of canned goods, as vegetables, soups, meats, salmon, &c., with regard to supplies for Acheen from Penang (and Singapore for that matter, though less).

CARRIAGES.

In the statistics of 1885 for Penang, an importation of $470 for carriages is mentioned. I am aware that a few American carriages were also imported here in 1884 and 1885 and that they do not appear in the Singapore statistics. I do further know that these vehicles, one and two seated buggies and two-wheeled dog-carts, though neat and handsome, took a long time to sell, and then at reduced prices. I devoted, four or five years ago, large space in one of my commercial reports (it was published) to carriages, reporting upon local customs and habits as to driving, climate, the carriages themselves, &c. I showed how the latter should be provided, what additions and appendages they should have. But I find that since then not one of the vehicles sent from our own country was provided as recommended by me, and that had much to do with their slow and reduced sale. I repeat now:

(1) That, dog-carts covered or open excepted, each four-wheeled vehicle should be provided with a driver's seat. If a phaeton or buggy phaeton, in such a way that it can be taken off or put on easily (to be solid when set up), to give the owner the liberty of driving himself from the main seat, or to be driven by his groom.

(2) The top, when up, should come well forward, so as to nearly touch the back of the coachman. It is to give ample protection against a slanting tropical sun, morning or afternoon, as well as against a driving, beating rain squall (the latter are frequent here and always accompanied by high winds); the apron, of good oil-cloth, under the dash- [illegible] as to reach up nearly to the neck of [illegible] the body

two straps solidly fastened to the hindmost bow of the top, so he can hold on to the same (strong enough to give him sure footing). The foot-board should not be over 18 inches or thereabouts above ground, so as to enable jumping on or off with ease.

(4) A vehicle should be so constructed that it can be turned in the smallest possible space (around its own axis, nearly) without the fore wheels touching the body of the carriage. I know of some very handsome buggies, about which I also reported, that sold badly because they were not constructed in that way; the fore wheels, being large, required describing a large circle in turning to prevent the tipping over of the buggy; also, because they had no foot-board behind.

(5) The very best species of thoroughly seasoned wood should be used, especially for the wheels, and the latter, hoops included, should be a little heavier, more solid looking than of those sent out. There is a great deal of notoriously reckless and careless driving here, carriage accidents are of frequent occurrence, and a vehicle with light, fancy wheels, taking a common chance, is apt to soon come to grief. I am aware that American buggies, though admired for their neat, handsome, and graceful appearance, were viewed with distrust on account of light, spider-like wheels. Why not give a little heavier, stronger wheels if they want them? they wouldn't cost any, or very little, more.

(6) Dog-carts with strong, high wheels, and provided with top and dash-board (the same as a buggy), and a foot board behind, are much in demand here for both horses and ponies. Open dog-carts are also much in demand. There are various patterns of them, but doubled-seat ones, for four persons, to sit back to back, are most in demand.

This shown, I would mention that there are plenty of carriage factories here and that they are on the increase. A very few of them are conducted by Europeans and the rest by Chinamen. The former, one factory in particular, turn out very good and neat work of the most modern and stylish kind and of most any pattern or design, and charge pretty high prices, and get them, too. They have constantly a stock of ready-made carriages on hand and build to order as well. They guarantee their work, common wear and tear, for one year (all factories do that here), and act up to agreement. Many of the "carriage findings," or trimmings, are imported from our country, and do not appear in the statistics. The local carriage builders have a great advantage in having the very best kinds of wood for their carriages. I don't think that any part of the world produces better woods for that purpose (for any kind of vehicles), and all mechanical purposes, and in greater variety than this part, viz, Indo-Malaysia, mainland and islands, with Siam and Burmah, or for less money, though the best species have been gradually increasing in value. This I have mentioned in several reports.

All materials and findings for carriage building are duty free, and so are ready-made carriages; in fact, all kinds of goods. Europe, especially Great Britain, is a competitor in the carriage trade, and there they have learned the points most desired in vehicles for this market and build accordingly, and succeed in selling their work for about the same prices as locally built work sells for. But, taken all in all, the locally built vehicles find the most favor, because of excellent material and guaranteed for one year.

IRONWARE AND MA

useful article of American ingenuity and invention. As to machinery, I am willing to consider the statistics correct; but I think otherwise of ironware, or hardware, as we call it, because this branch of commerce embraces such a vast multitude of articles, among which there are some, especially in the line of mechanical tools and agricultural implements, which are nowhere made better, more useful, and ingenious and labor-saving than in our country. Now, while fully aware that we have dangerous competitors in this branch of commerce in the United Kingdom and parts of continental Europe, I feel morally certain that more has been imported from America than the statistics show, only the goods came via England. I think there are parties here who import some American hardware, but keep it to themselves, and ignorant purchasers believe them to be European, or raise no questions about the country where they were manufactured; the article suits them and that is all they care for, the purchasers being in the main Asiatics. This secret keeping of the country of manufacture does not matter much so long as an article is in demand and is not underbid through counterfeited goods. A number of our American tools, implements of husbandry, &c., all of them—shape, make, finish, and material—the result of American ingenuity, energy, perseverance, and sacrifices, have been counterfeited with more or less success in Europe, though I fail to find so far that they make use of American trade-marks.

I have during my long residence here made repeated and strenuous efforts for those tools and implements (especially axes, hatchets, plantation, grubbing, and garden hoes, &c.) as seemed to me would, owing to their great superiority be sure to find among European planters, and even natives, ready customers and increased demand. Some trial consignments were sent out and sold, but somehow other shipments did not follow. Upon inquiry I found that close imitations of the same goods, cheaper than the American originals, were imported by British and German firms.

Germany is now a dangerous competitor in iron ware in British colonies; the statistics make this plain from year to year. One can call here in most any ironmonger's shop for and be shown an American ax, but upon close inquiry he finds it was not made in the United States. One species, and so marked, goes under the name of "Anglo-American ax." The relationship is strong in appearance, but in quality I should want to count it out. I bought one myself to try it, and on a hard, knotty stick it proved brittle, breaking off by bits. Still, for all that competition, I have it from good authority that on the tobacco estates in Sumatra a great many American axes are in use, give great satisfaction, being preferred to any other, even if a little dearer. The planters must receive them by way of this colony, yet the statistics don't show it; and it really makes no difference, because Sumatra, where they are bought, is Dutch territory.

On looking over the stocks of goods in most of the ironmonger's shops a practical American finds such an absence of useful implements [illegible] tools and things such as we find in our carpenter's and cabinet- [illegible] Western farm, or of improved make some of

do in its own colonies. I have tried my best to impress some merchants with the success they would have if they imported them (in this wooden planting and mining country), describing the shape and usefulness of them, but all in vain. They are all city-bred Europeans (and the Chinese are used to Chinese articles and very conservative) and have no correct idea of tools and implements that would prove so useful and beneficial, and explanations are simply useless; they know more about piece goods and textile fabrics in general demand and use.

I look upon this (all of Indo-Malaysia, including the Archipelago, Siam, and Burmah, &c.,) as a splendid field for the sale of American tools, implements, articles of husbandry, &c. (not so much for labor-saving machinery); but I feel thoroughly convinced that so long as no Americans, practical smart men that understand the use of these things and can explain them, open firms at prominent points for the sale of them, this market is practically closed and lost to us to a very great extent. Such smart Americans might introduce and sell many other kinds of American goods as well, become of great benefit and usefulness to our manufacturers and laborers at home, and make fortunes for themselves. I have said so years ago and can only repeat it.

PETROLEUM.

In that we flourish in the statistics and in reality, because the article comes here direct from our Atlantic coast, not transshipped in Europe. Russian competition, too, has not interfered in the least with our petroleum trade in this colony so far, and I don't think it will very soon, if at all. Our petroleum comes in nice, presentable, handy shape, in well-made, fine cases, containing two tin cans of five gallons each, and it is really and truly refined petroleum—a good article. And this it has to be to receive a permit for landing from the colonial authorities, as it has, under a colonial ordinance, a certain prescribed test applied to it by a sworn inspector, proving itself not to be dangerous oil. Every cargo, immediately after arrival in port, has to undergo this test, and if it does not come up to it the cargo is condemned, and the vessel carrying it is forbiden, under a heavy penalty, to discharge it within the colony; though there is a bill, as an amendment or modification to the petroleum ordinance now before the colonial legislature, which provides that a cargo of condemned petroleum ("dangerous oil," so called) may be landed in an isolated place, out of danger to the community, on the express condition, under a heavy penalty, that none of it is to be sold within the limits of the colony. This will relieve the local consignees of such a cargo (supposed to have been made the victims of American petroleum exporters) and the master of the vessel carrying it from much annoyance, loss of time, and expense. It is tacitly assumed that neither the local consignees nor the master of a vessel are to blame if a cargo of oil does not stand the prescribed test (and it is not a very high exacting test), but that the exporter or petroleum tester in the United States only is responsible.

Since the said petroleum ordinance came into force June 1, 1885, of the many vessels that brought petroleum to Singapore and Penang from New York and Philadelphia, only one cargo, this at Penang, did

chambers of commerce of both ports and led to a petition to the colonial government to modify the existing petroleum ordinance to the extent above explained. The modification will no doubt pass the colonial legislature.

Immense quantities of American petroleum have been landed at this port (less at Penang) in the last few years, not only for local consumption, which is, I may assert, now general among all classes of the population regardless of wealth, but also for transshipment to ever so many ports and places in Southern Asia, of which Singapore is practically the distributing center and in constant communication by steamers and native sailing crafts. The whole east coast of Sumatra is supplied from Singapore and Penang, which means much, as it includes the well-populated and wealthy tobacco districts of Deli, Langkat, and Serdang. (A railway now runs in Deli, from Labuan, on the sea coast, west to Medang, near the heart of the island, and the country or belt through which it runs may practically be called one immense tobacco plantation.) Also, the west and east coast of the peninsula of Malacca. The west coast, as far as Maulmain, in British Burmah, embraces the provinces of Johore with Muar, the settlement and town of Malacca, the protected native Malayan provinces of Sungi-Ujong, Salangore, Birnam, Perak with Larut, the settlement of Province Wellesley (all teeming with enterprises of tin mining and planting), and, north thereof, the coast of Tenasserim, Pegu, and a part of Burmah. The whole east coast of the peninsula as far as Siam proper is supplied from Singapore, embracing, north of Johore, the independent Malay province of Pahang, and next Tringany, Kalantan, Patani, and Singora, Malay provinces under Siamese suzerainty. Siam proper, by way of Bangkok, receives on rare occasions cargoes of petroleum direct from the United States, but by far the largest portion comes from Singapore (transshipped) and that amounts to a great deal. Saigon, in French Cochin China, is also supplied from this port; but may also receive supplies from Hong-Kong. The countries and ports of south, west, and north Borneo, as Pontianak, Sarawak, Labuan, Brunai, and the territory of the British North Borneo Company, with several ports, of which Kudat and Saudakan are the most important, are also supplied from Singapore, as well as the Sooloo Archipelago, just north and east of Borneo. Added to all the ports and countries mentioned, come the hundreds of minor stations and islands, scattered about like a handful of peas over a large sheet of paper, which are supplied by small steamers and Malay prahees and junks, some of these places being trading places and stations of some importance. Last, but not least, I would mention that part of the Dutch Malayan Archipelago (all lying west and south and southeast of Malacca Straits) is supplied from Singapore and part from the Javanese ports of Batavia, Samarang, and Sourabaya, and Macassar on Celebes, as far southeast as the Moluccas and New Guinea (and of course many other kinds of goods go with petroleum and the same vessels bring back the products of each respective landing place).

To go into the details of the immense field of consumption of Ameri- briefly indicated, I would have to write many the very important part more

gallons. The average value per case, I think it is safe to say, was $2, or for all, $698,838, local currency. Of the vessels that brought this oil to this port 7 were American, 6 Italian, 1 British, and 1 Austrian.

From October 1, 1885, to September 30, 1886, were imported here, as per landing certificates sworn to, from the United States in 23 vessels, of which 7 were American, 11 Italian, 3 British, and 3 Norwegian, 603,729 cases of petroleum, containing 1,207,458 five-gallon tin cans, or a total of 6,037,290 gallons. Owing to increased importations, with a large stock in the market, the price of the article fell somewhat, but I think that $1.85 at least per case was the average price per year, which would give a total of $1,116,898.

The question has been agitated for some time in and out of the local papers, especially of late, when importations vastly increased over former years, whether all supplies of petroleum required here would always be imported from the United States, if the oil springs there should continue to hold out. It was pointed out that countries ever so much nearer than America or Russia, as for instance, Burmah, Sumatra, Java, and prominently Borneo (the territory near Brunai or Labuan), were rich in petroleum, and were known to be for a long time back, and it was urged that with the needed capital (to be had), the oil industry might be developed and refineries established in said countries, and that thus "much money would be kept at home." It was further pointed out, that in view of the heavy outlay in the United States in bringing the oil from the springs to the seaboard, hundreds of miles, and from there to this port, this would be gained or saved to a great extent; that all considered, it was time, and it would pay, to develop said oil fields, and to get them into good working and shipping order. Much was said, but "not all that was necessary."

Now, if they had Americans here, both capitalists and workers, in any branch of work connected with petroleum, from the well to the seaboard, or persons who could prove their equal, I might say that our country might have some reason to fear such a substitution (as such it is intended more than competition). But, while it is to be admitted that the necessary capital could be produced if it was found that it would pay beyond doubt, there is none, as far as I am aware, taking hold of the business; there is no skilled working force, and beyond venting the matter in print and in social circles, there appears to be absolutely no animation, public or otherwise, towards calling such an enterprise into life.

Burmah has been known to be rich in earth oil for ages back, and earth oil, raw and unrefined, was exported in large jars or jugs thence to the ports of India long before petroleum was exported from America, and was used more for medical than other purposes by the natives. A few years ago some parties in Burmah started the business of refining petroleum on a small scale, but from all I could gather the enterprise has not proved growing, and their refined product must have been consumed at home, since I failed to learn that it interfered with American petroleum in the least. But now that the British have annexed all Burmah, it remains to be seen whether efforts will be made to make the petroleum industry a success. That country is reported to be rich in petroleum.

Not far from Deli, Sumatra, in a somewhat in[illegible]

towards that industry had been erected or made. No resumption of the work, I have been told, has taken place. Of anything that has been done in a like or similar direction in Java, I have not been able to gain any information worth writing about; only that petroleum springs had been discovered there.

From authority I deem reliable, I have learned that a district on the west coast of Borneo, near Brunai, is rich in oil springs; that the existence of earth oil has been well known to the natives for many years (that district is, also, rich in bituminous coal of very fair quality). Lately a party here, appearing to be well informed in the premises, endeavored to make propaganda for the development of the oil industry there, through the local press, mentioning among other things that the American petroleum trade failed to bring about a lively reciprocal trade with the United States, since the products of this part of the world, *i. e.*, Straits produce, found their way to the United States from London, instead of from Singapore; that the trade was only of some benefit to the few vessels left of the once great American merchant marine. He was not answered through the press; the matter simply became the subject of considerable discussion for a few days and then was laid aside; agitation, it produced none. It was an injustice to say that our petroleum trade proved profitable, *par excellence*, to the few vessels of our merchant marine, because any records prove that more than one-half of the petroleum imported here from the United States was carried by foreign, essentially Italian, vessels, which, I have repeatedly heard, accept lower freight rates than vessels of other nationalities and receive a subsidy or bounty from their Government. If any danger threatens our American petroleum trade from the quarters mentioned, it will, I feel confident, be a long time before it is realized.

PROVISIONS AND SALTED MEATS.

As to provisions (canned) and salted meats, I feel certain that much more was imported at Singapore and Penang during 1884 and 1885 from our country than the trade statistics show. The sum total for both years and ports of all that comes under that head is shown to be only $5,350. The trade statistics show, under the caption of "Provisions, fresh and salted" (we know that in this climate, except on ice, which is dear, in steamers, though not near as on the scale carried in Atlantic steamers, no fresh provisions can be carried for a great distance, at most three or four days, and that, therefore, what I allude to, may be pretty safely considered as salted provisions), that, for instance, mentioning only important ports, there were imported in 1884 and 1885 the following:

From—	Singapore.		Penang.	
	1884.	1885.	1884.	1885.
	$3,505	$4,182	$60	.....
	.....	.....	.....	$500

For salted pork the statistics for both years and ports show importations amounting in all to only a few hundred dollars. Now, granted that vessels, steam and sail, from transoceanic ports generally bring salt pork enough with them to last them for the round voyage, there are plenty of vessels that do not, and for this reason I look upon the statistics concerning both salt beef and pork as erroneous; but it may be that many such importations were entered under other captions. The question is how many articles not mentioned by name in the statistics are entered in the statistical bureau under the head of "salted provisions." Now, for instance, "butter and cheese" are not taken up under the provisions caption, but are assigned together a place in the statistics, so that one cannot find how much butter and how much cheese was imported, nor do the United States appear under this caption, though I know that American tinned butter was imported, if not cheese. It is shown that at Singapore in 1884, $69,980 worth of butter and cheese were imported (none at Penang), and in 1885, $57,407 worth at Singapore and $14,806 worth at Penang, and all from different European countries, the United Kingdom alone standing credited with a total for both years in both ports of $84,902; though, whatever may be true of cheese, I don't think that of all this amount of butter was produced in the United Kingdom. One must know how to read between the lines in these statistics.

The question then is, which articles fall under the head of "salted provisions," and the answer is that it embraces a long list of articles. The statistics show that by far the largest amounts were imported from China and Hong-Kong, and this embraces for Chinese consumption various salt-pickled vegetables (prominently cabbage and a kind of carrots), small fishes, and shell-fishes, and even certain fruits; but I think it embraces, also, canned (or put up in bottles and jars) provisions shipped from transoceanic ports. What the proportions of actual Chinese and not Chinese items are it is impossible for me to say. To ascertain this (and, in fact, for all goods imported) I would need an extra allowance for a very able extra clerk, to be allowed a desk in the statistical bureau of the port, with full permission to obtain all needed information, and I do firmly believe that such an appropriation would pay, prove valuable to American trade, because imports of importance could be reported home and published there at any time without waiting for unreliable annual statistics.

Leaving China and Hong-Kong out, I believe that salted provisions embrace hams, bacon, all kinds of canned vegetables, beef and other meats (potted meats), soups, canned milk, &c. As to canned vegetables, beef, milk, potted meats, much of what is imported is American, as the labels show, if the statistics don't; as above explained, the transshipment in England accounting for the seeming discrepancy. The best canned milk in the market is American milk, generally admitted, and at a higher price than any other imported finds large sales.

Well-informed business people can pretty well guess how much of the very large amount of salted provisions with which the United Kingdom stands credited was actually produced in that country.

TOBACCO.

brands of (cut and dried) smoking tobacco, the latter being chiefly smoked by Europeans, seafaring and resident. The natives use now and then plug tobacco, but in the main they use tobacco of Asiatic growth, prepared in various ways by themselves to suit their own tastes and fancies. The statistics also show importations of tobacco for said two years and both ports from France, Germany, Holland, and Italy, for several thousand dollars. I think that the tobacco from said countries is smoking tobacco, and that American tobacco will gradually, to some extent, take the place of importations from said countries, and would have taken it long ago but for our revenue laws, which hindered the export of American tobacco in stamp packages. The imports of tobacco from Hong-Kong for said two years at Singapore and Penang were very large, as follows:

Ports.	Quantity.	Value.
	*Piculs.**	
Singapore in 1884	26,900	$595,068
Penang in 1884	4,893	106,918
Singapore in 1885	20,844	471,345
Penang in 1885	5,279	133,052
Total	57,916	1,306,383

* 1 picul = 133⅓ English pounds.

This tobacco from Hong-Kong is essentially of Chinese growth, prepared in China for Chinese use in this colony and neighboring countries; it is very finely cut and of a dark brick-red color. But tobacco importations from Hong-Kong may also embrace consignments of American tobacco to a moderate extent.

The statistics show also tobacco importations from the United Kingdom as follows:

Ports.	Quantity.	Value.
	*Piculs.**	
Singapore in 1884	264	$16,913
Penang in 1884	69	7,332
Singapore in 1885	384	15,379
Penang in 1885	55	4,910
Total	772	44,534

* 1 picul = 133⅓ English pounds.

I think that a portion of this tobacco was American plug tobacco out of bond in England, and for the rest we know how much of it was grown in the United Kingdom, if manufactured there. With tobacco imported in the East from Great Britain and continental Europe and manufactured there, it is a good deal as with cotton goods manufactured there, *i.e.*, the raw material, nearly all if not all, so that on

or trade-marks on the same plainly indicate. Some of the large bread and biscuit bakeries import it in barrels and bags, and all of it comes from Hong-Kong, transshipped there from San Francisco. The consumption of wheat flour in this colony and adjoining provinces is very large, notwithstanding that rice is essentially the staff of life for the entire native population. Owing to the extreme tropical climate and excessive moisture in the atmosphere, Singapore and Penang can never serve as store-houses of wheat flour or "breadstuffs" for a protracted time, of over a few weeks at most, because the same would absorb atmospheric moisture, and mold or sour. Consequently the flour exporters here, who are all Chinese, have their agents or depots at Hong-Kong, and draw from there from time to time the needed supplies. The United States has, as the statistics show, two competitors in the flour trade, viz, Austria and Australia, the importations from the former being somewhat on the increase. To my knowledge a Chinese bakery (the largest of any) here has imported for many years wheat flour from Trieste, and there being a monthly service of direct steamers from that port, via Bombay, Colombo, and Penang, to this port and on to Hong-Kong (the Austrian Lloyds), our California flour exporters have more or less reason to be watchful of this competition. Upper India, which of late years has become noted as a heavy wheat exporter to Europe, has not as yet appeared as a flour competitor in this colony, but I fear it will be only a matter of time until she becomes such. If they have flouring mills that grind more wheat than they need for home consumption, they shall probably want to sell the surplus, if it can compete in quality with the flour now in use, in the colonies and countries nearest to them.

To give an idea of the quantity and value of wheat flour imported in this colony, I quote from the statistics of Singapore and Penang for 1884 and 1885, mentioning the most important importations only, viz:

Ports.	Whence imported.	1884.		1885.	
		Quantity.	Value.	Quantity.	Value.
		Piculs.		*Piculs.*	
Singapore	Austria	600	$9,000	2,749	$18,500
	Australia	54	600	807	5,300
	Hong-Kong	100,450	469,524	86,685	457,402
	China	102	423	34	196
Penang	British India			2,801	12,169
	China	504	2,688	12	28
	Hong-Kong	1,025	9,986	42,098	194,928
	Total	102,735	492,221	135,186	688,523

It is very strange, in point of simple consistency, that the trade statistics should utterly ignore our country as a flour exporter to this colony and substitute Hong-Kong. Just to think of the "immense wheat fields" on the barren rocks of Hong-Kong to produce, and the grist mills (not existing) there to turn out such an immense quantity of wheat flour! Comment is unnecessary; only this, these statistics go to the whole commercial civilized world, and such as are not informed will look upon Hong-Kong as a prominent wheat-producing country. And as it is

in this part of the world to study its commerce and consult these statistics, is accordingly misled or misinformed. On the other hand, the ports of this colony are free ports without custom-houses; and while port regulations for the correct report of imports and exports to the respective bureaus, in charge of the harbor-master of the port, exist under penalty, it is, without the enactment of new strict laws, almost impossible to get better, more detailed, and reliable statistics than those hitherto published.

EXPORTS FROM THIS COLONY.

Now what is true in the colonial trade statistics of imports, as above explained, is equally true of exports in point of destination; they show under the caption of "where to" the country for which a vessel cleared, or in which the port is situated for which it cleared, and for which bills of lading were signed, notwithstanding the goods mentioned thereon may be destined for another country, to be transshipped thither. But as regards the United States, I have the advantage in exports over imports in this, that I can furnish my own statistics, based upon the exports declared by the shippers in their invoices in this consulate and the consular agency at Penang, for each quarter, and both the quantity and value of each article by name and the aggregate for the year with the aggregate of the preceding year, so that one can see at a glance in which article (or in the aggregate for each quarter and year) there was an increase or decrease. As during my absence on leave last year no statistical report of exports for the year ending September 30, 1885, was sent to the Department, much to my regret, I send it now, both for Singapore and Penang, and would point out that I have so arranged my tabular report of the "quantities" of exports as to show what portion thereof American, British, and foreign vessels not British (the last mentioned under that heading), respectively, carried to the United States from this port. The freight tables speak for themselves and need no additional comment from me under the caption of "exports."

Under existing port rules exporters, when they ship goods to the United States (declared in this consulate) by steamer in an indirect way, that is to say, via an English port if for the Atlantic coast, and via Hongkong if for our Pacific coast, are in honor bound to report at once and correctly, truly such shipments to the colonial export office. I believe that the majority of the shippers adhere to this rule, but I am fully aware that in instances it was and is not adhered to.* The result is, making at the same time allowances for possible mistakes in the statistical bureau, that the trade statistics do not at all agree with my annual reports of exports to the United States. But, after that, and I deeply regret it is so, even my own export reports, regardless of every care and labor bestowed upon them, and of being the true summing up for each quarter of and the year, based upon the declared exports as per shippers' invoices on file and record, fail to show the actual quantities and values of exports of Straits produce† from the ports of Singapore to the United States. If any one looks upon my report as

me now to show and explain the grounds upon which I base this information, as follows:

Since the act of 1865 prescribing that an additional or discriminating duty of 10 per cent. ad valorem, in addition to any duty already thereon existing on very nearly all goods produced, grown, or manufactured in countries lying east of the Cape of Good Hope, should be levied when shipped to the United States from ports or places lying west of the Cape of Good Hope, was repealed by Congress a few years ago, a different state of affairs set in. The result of this since then has been and is that Europe, prominently London, has become the chief mart of Straits produce and products from the entire East, while Holland, *i. e.*, Amsterdam and Rotterdam, takes about the same place for certain products, at least from her colonies in the East known as "Netherlands India," and that large quantities of such products are shipped from said and other ports and declared before and verified by the United States consular officers stationed at the respective ports, notwithstanding (I, at least, have received no information to that effect) that the United States statute prescribing that "all invoices for exports to the United States shall be produced to and declared before the United States consular officers nearest to the place of growth, production, or manufacture of the invoiced goods," &c., has not been repealed.

Are nutmegs, pepper, and other spices, rattans, Malacca tin, coffee, Eastern gums, sago, tapioca, &c., the natural products of England? Everybody knows they are not. I shall have to return to this subject again under the caption of "navigation," to show how this is affected thereby, but now I want to show how American consumers, since these are products which go very nearly into every household and American trade generally, are affected thereby.

Granted that in point of time, or speculation, or both, it is very convenient and advantageous to firms in Atlantic seaports to order or buy per telegraph certain quantities of Eastern products to be delivered by early steamer or, that a merchant in London, lower quotations ruling there, and better ones prevailing in the United States, avails himself of the latter market by telegraph and hasty shipment. Eastern goods bought in Europe naturally must cost more than if bought in the country of production or growth. Allowing that the cost of freight from Singapore to London is about the same as if shipped by steam or sail from here direct to New York or Boston, there must be added the costs of discharging in London, all dock charges, warehouse rent, and insurance; then the costs of reshipment and a second insurance for the transit and the cost of freight of the same across the Atlantic. And the London merchant, after the original shipper in the East has made it, must somehow, and as a matter of course, make a profit or a goodly commission if he is to exist, and last, but not least, goods nearly always suffer more or less through transshipment. But, "Pshaw!" may some one say, "one can buy often enough an article cheaper in London than it sells for at the same time in Singapore." Granted this is so or be so, we must ask, "Is it in as good a condition as when it left Singapore?" and, next, it may be accepted that he that has them expects to make good any loss, if he is forced to sell, on some other article that rules higher than in the East—he is bound to recoup, or recover, and some

argue about like this, viz: A merchant produces to me an invoice of black pepper about to be shipped to New York, invoiced at current London quotations. Now it occurs to me that in order to be right (notwithstanding the exporting shipper is prepared to make oath, and truly, too, that the invoiced price is the current local market quotation, and I may regard it in that light), in the spirit of existing statutes and other standing instructions that this pepper was not produced within or near my consular district, but in Malaysia, near Singapore, and the would-be local shipper admits that it was sent from there, I would say to him (have to), "Produce to me under oath your Singapore invoice with bill of lading for it (whole or part of original shipment) and an abstract, as well, of all the expenses you had on it since its arrival in Europe, adding, also, the charges of reshipment, commission (if he is purchasing agent and not owner), &c." If the summing up of all this should essentially agree in the aggregate with the invoice produced, I should certify to it, but not otherwise, and then only if permitted by statute; the local quotation would be absolutely nothing to me.

To these shipments of Eastern products from European, prominently English, ports, and the injurious effect they had on reciprocal commerce with the East and American navigation, I have repeatedly alluded in my commercial reports since the 10 per cent. discriminating duty act, above alluded to, was repealed, and in particular (urgently) in my dispatch No. 596, of December 6, 1884. At that time, and for some time after, exports to the United States sank to about one-half of any former year; I heard that the only and direct cause of this was that Straits produce had been and was being shipped in large quantities from England; that the merchants there experienced no difficulty whatever about having their invoices verified in the American consulates. I reported this to the Department, and not very long thereafter exports from here to the United States gradually and steadily increased until about four months ago, when they again commenced falling off alarmingly, with a steadily increasing population at home. Upon inquiry in various quarters, I learned that the large shipments of Straits produce from European, prominently British, ports were the direct cause of it and that it was viewed with dissatisfaction by such of the local merchants as have no branch firms in Europe. I can assure the Department that the promiscuous export of Eastern goods from European and British ports to our country, instead of from the East direct, is injurious, very, to American commercial interests generally, and to our reciprocal commerce with the East in particular. Nothing will tend to build up our national prestige and commercial welfare in the East like direct reciprocal commerce and statutes by Congress that will insure it. Without it, as I verily believe, after fifteen years' residence at this port, and in view that we possess no colonies (and want none), we are at an immense disadvantage.

As to the export of Eastern products to the United States from Europe there is certainly one product of importance, viz, Deli-Sumatra

Malacca. There can be but little difference in the distance from Deli to Padang or to Penang; but as to Padang, the range of very high mountains with precipices, torrents, &c., and dense virgin jungles, lying between it and the tobacco district of Deli, form an impassable barrier; there is no direct communication. If a shipper of tobacco in Deli stood in need of a consular certificate to his invoice of tobacco, he would have to send it by letter to Padang, and it would take about a month before he could get an answer. The letter would first be sent by a small steamer (the sea-coast in front of Deli is shallow and only accessible to vessels of light draught) to Penang or Singapore, and if no steamer for Padang should happen to be in port at the latter port it would be sent to Batavia, Java, and thence to Padang, and the answer would be returned by about the same routes. But the vice-consul at Padang, or the consul at Batavia, for that matter, would find it difficult, if not impossible, to give his certificate as to the correctness of the invoiced price of tobacco to such an invoice, because there are no quotations of Deli tobacco there, nor here, or at Penang. (In the Singapore market report tobacco does not appear with or without quotation as an article of "Straits produce," notwithstanding Deli tobacco is a Straits product.)

In a commercial report published this year by the State Department the United States vice-consul at Padang writes upon the subject of tobacco cultivation in different localities of Sumatra, and, with reference to Deli tobacco, he says (to sum it up in a few words), while showing the great importance of tobacco planting at Deli, the large scale on which it is carried on, that Padang was so situated by nature as to prevent him from giving the details or *modus operandi* of tobacco planting, curing, assorting, &c., and thinks or suggests that the United States consulate at Singapore was in a better position to give this information. Now, he is probably right as to that, and I have in several of my annual reports dwelt upon this subject at more or less length. But what I know and reported about it, though Singapore is not in Sumatra, was not revealed to me in a dream; no, it was the result of unremitting, diligent inquiries, reading, and study. I will admit that my personal acquaintance with quite a number of Deli planters (some of them now dead and others retired wealthy, living at home), and my personal knowledge of agriculture brought with me from the United States, gave me a good deal of advantage in the premises without ever having visited Deli. But it is not my purpose, now, beyond saying that the cultivation of tobacco in Deli and in Langkat and Serdang (provinces adjoining Deli), has increased wonderfully from year to year, immensely, to write about tobacco planting, &c., repeating former reports, and only to show why Deli tobacco is shipped from (and invoiced at) the ports of Holland and not from Deli direct.

In the first place, as shown, the sea-coast of Deli is too shallow for transoceanic vessels. There is only one place, known as "Labuan Deli," near the mouth of the Deli River, which is deep enough to admit small steamers of about 400 tons or less, and all the tobacco produced in Deli and adjacent districts is sent to Penang (very little to Singapore, being a detour) for transshipment there in large steamers to Amsterdam and Rotterdam, which ports have been famous for the commerce in tobacco

tobacco grown in any other country), and in grading tobacco and pricing each grade justly a thorough knowledge and long experience is wanted, which is found in Holland. The tobacco planter in Sumatra, when he ships his crop, while he knows the exact quantity of what he ships, does not know, or only approximately, the value of it, because there is no market or appraisement of tobacco there, nor at Penang and Singapore; he has to rely entirely on his agent or factor in Holland as to appraisement, sale, and remittances. New planters, too, receiving advances from tobacco merchants in Holland are generally bound in writing by them to forward the entire product of their plantations to them or to such parties as they designate, so long as they remain in debt to them.

The circumstances under which a crop has been grown (wet or dry season), the proper time of cutting the plants, the curing (the most difficult part of all), assorting, and baling of the article have much to do with the price, and the planter may receive more or less than he anticipated; and the stock in the market of and demand for tobacco also influence prices. The tobacco, after having been thoroughly cured and being in a fit state for shipment, has to be assorted first. This is done first as to lengths of leaves, and there are several. Next, each length is assorted as to colors; very dark, dark brown, brown, light brown, yellow, spotted (ragged or damaged); each color length is then bundled, lettered, and baled. The more careful the assortment and packing, the better the price. All these intricacies in fixing grades and dealing with the article in Holland cannot be so well known (all depending on length of experience) on the tobacco estates in Sumatra. I could not certify consistently to an invoice of Sumatra tobacco shipped here to the United States, because, even if I had the samples, I could not appraise them, having no standard, nor find competent, reliable appraisers here to do that for me, tobacco not appearing in the list of export produce; and, for that same reason, the local forwarding agent of a Sumatra planter could not (as I had occasion to find out) make oath to the invoiced value of the tobacco and to the charges.

To give an idea of the importance of the tobacco exports from Sumatra to this colony, and the re-export thence to Holland, I quote from the trade statistics of 1884 and 1885, as follows:

Ports.	Piculs.	Value.
Received at—		
Singapore in 1884	3,890	$99,569
Penang in 1884	41,421	1,800,989
Singapore in 1885	1,897	52,610
Penang in 1885	57,320	2,273,821
Total	104,528	4,226,989
Exported to Holland from—		
Singapore in 1884	42,915	1,923,089
Penang in 1884	64,934	3,999,109
Singapore in 1885		
[illegible] in 1885	107,849	5,922,198

head of exports and not, also, under imports. I believe that all of it, regardless of discrepancies, was Deli tobacco. These figures, at any rate, give an idea of the importance of the cultivation of and trade in Sumatra tobacco, and at what proportion the cultivation is on the increase in one year, from 1884 to 1885. I can remember the time when from 15,000 to 20,000 piculs was the total quantity of one year of Sumatra tobacco exported. Now what proportion of the entire export of Sumatra tobacco is sent to the United States, our own statistics and those of Holland must show.

This shown, and referring to the several articles embraced under the caption of Straits produce, I would say, before reporting upon them seriatim, that some of them experienced lively fluctuations with a gradual constant upward tendency, while others became much dearer through other causes than speculation alone, and again others remained almost normal.

EXPORTS TO THE UNITED STATES.

Black pepper takes the lead, with a vastly increased cultivation on the peninsula of Malacca, in Sumatra, Siam, Borneo, and in localities where formerly little or no pepper was planted. It is now about 85 per cent. higher, $20.50 per picul, than it was during the first years of my residence here, and not so long ago it was up to $24. For the benefit of the masses of our people who consume more or less of this spice, I would say, that as I see and understand it, there is in reality no need for such high prices. With due allowance to the plantation laborers for the depreciation of their wages, paid to them in Japanese silver dollars (which allowance they do not receive, but their Chinese "towkay" pockets when selling his crop), I call this spice, in view of its vastly increased cultivation (like three to four now to one in 1871 to 1875), very dear (not losing sight of the immense stock held by speculators) at $14 silver per picul (133⅓ pounds). This wild speculation in pepper originated essentially in Europe.

Pepper, unlike many articles of colonial produce, is one that will keep for a very long time without any discoverable deterioration, if not handled much. The United States, pro rata of population as compared with other countries in Europe, consumes more spices, of pepper, nutmegs, and mace especially, than any of them, and as to pepper, large quantities of it are used in curing meats on an extensive scale in meat-packing establishments and on the farms in our Western States in addition to household consumption. This consumption of spices, any kind, pro rata of population by any country, is pretty well known here in the country of production among exporters after long experience, and as most of the latter have branch firms in London chiefly, it is of course well known there as well.

I feel pretty certain that if our consuls in England, and the continent of Europe, were forbidden to grant their certificates to invoices of this spice (and any other Asiatic produce, for that matter), it would come down from its high horse pretty soon—reduce wild speculation; actual consumption more than speculation would fix the price of it—a reasonable one.

Singapore and Penang are the principal pepper-exporting places in the East (Padang, in Sumatra, and ports in J

at home). This would give at the same time more employment to American vessels than they now have at wretched figures (with much loss of time), in view of the immense seafaring competition, steam and sail.

To give a fair idea of the importance of the pepper trade here, in the country of production, and in other countries in 1884 and 1885, I will quote the exports, first from the records of this consulate to the United States, and next from the colonial trade statistics to countries in Europe; taking Singapore first, and giving only the value, not the quantity. (The average value per picul for the two years was about $18, Mexican.)

To the United States from Singapore, as per declared exports in this consulate in 1884, $554,099.89; in 1885, $195,788.72, as per trade statistics.

Countries.	1884.	1885.
Austria	$159, 147	$224, 918
France	185, 203	149, 247
Germany	168, 203	249, 218
Italy	13, 127	274, 783
Russia	38, 610	55, 408
United Kingdom	1, 391, 566	1, 598, 358

As to Penang and declared exports thence to the United States, I have not at hand the figures from the consular agency for 1884 and 1885 and only for the years ending September 30, 1885 and 1886 (sent with my first part of this report), and must, therefore, quote from the colonial statistics, which, in this instance. I believe to be approximately correct, viz:

To-	From Penang.	
	1884.	1885.
United States	$34, 895	$59, 303
Austria	----------	265
France	19, 984	33, 616
Germany	66, 300	75, 878
Italy	18, 786	8, 260
United Kingdom	1, 209, 199	1, 612, 352

Holland does not appear in the pepper export statistics, because, no doubt, this spice was exported from her ports in Netherlands India to Holland direct, and I have no means of knowing how much. But the figures above shown speak for themselves. I think that Italy received less pepper in 1884 than she consumed, and much more in 1885, and that some of the latter was probably shipped via Genoa to countries north of Italy. I think that Russia is credited with less than she consumed, [illegible] supplies from British, Dutch, or Hanseatic German ports [illegible] are no tmentioned at all in the [illegible] States and

"what became of the other half?" Granted that some of the latter was re-exported to different parts of Europe, I firmly believe that the largest portion of it was sold and shipped to the United States, and this belief I base upon what I heard here from reliable sources. For the rest, our own trade statistics of imports from the United Kingdom and other ports of Europe will give decisive information in the premises.

As to *white pepper*, though its export is much smaller (about one-fourth of the black), because much dearer, the same remarks hold good, and perhaps, with regard to shipments from English ports to our own, were more so. I will only mention the exports of it from this colony in 1884 and 1885 to the United States and the United Kingdom, leaving out countries in Europe and quoting from the same authorities as in black pepper, viz:

To—	From Singapore.		From Penang.	
	1884.	1885.	1884.	1885.
United States	$18,758 65	$6,666 06	$3,100 00	$17,200 00
United Kingdom	496,068 00	492,670 00	253,594 00	345,608 00

I would mention here that the trade statistics of Singapore as to this spice do not agree by great odds with those of this consulate based upon declared exports. This, I hardly think, is the fault of the statistician, but of the parties engaged in the said exports by not reporting in accordance with actual facts (deception in trade or strategy arising from trade jealousy among themselves).

	1884.	1885.
My statistics, as above	$18,758 65	$6,666 06
Port statistics	17,865 00	13,644 00
Less	893 65	.....
Over	.....	6,977 94

As a merchant exports here on ship to his agent in London, and instructs him to try the markets of England and the United States, to sell in that which pays the most, such discrepancies are easily accounted for, but could not occur if any consul there refused his certificate. At the same time this tends to mislead other exporters here as to actual shipments to America and England. The exports, as actually or not actually intended (a port of destination must be shown, but not under oath or solemn declaration), are reported to the port export office, and by the latter to the chamber of commerce, for general information in its market report. The consul has no remedy to prevent such deception, as he can only certify to the invoices presented to him. There his jurisdiction in the premises practically ends. It is only after the publication of the port statistics by the local government that he can discover and expose such deception or "differences," if they are not deceptions, in his commercial report. I have [illegible]

clared exports in this consulate—and no one, before their official publication, ever came to ask me whether they agreed.

As I have been reporting on white pepper, I would briefly (as I have reported at length with description of producing it, the process in former reports) say that it is produced from fully ripe berries (light crimson in color and in size about the same as an average currant), from the same vine that yields black pepper, the latter being plucked green, before maturity.

NUTMEGS.

This spice, at least, experienced only slight fluctuations during the last two years, being at times as low, if not a little lower, than during the first few years of my residence here, and at times a little higher, and now they are again at about normal quotations. The size of the nut has much to do with market quotations, the smaller the nut the lower the price. Between largest and smallest, if in sound condition, there is a margin of from $15 to $20 per picul, those of 110 to the English pound being the highest priced. Those exported from Singapore come essentially from the Moluccas (Banda Islands, Amboyua, and even from New Guinea, where the nutmeg grows wild). Those exported from Penang are the actual product of Penang Island and immediate vicinity on the main land, where the nutmeg tree is largely cultivated, with increasing tendency, and does well. During my long residence here, I have by close observation and statistics discovered what may not be generally known, that our country buys and consequently consumes more nutmegs than the whole continent of Europe taken together, and before the repeal by our Government of the 10 per cent. discriminating duty on Eastern goods imported from places west of the Cape of Good Hope (referred to in my first part), the colonial statistics showed that far fewer nutmegs were exported to the United Kingdom than to our country. Since the repeal of said act, the tables have turned, and judging from the same statistics and my own, which I quote below, it would seem that the British have become enormous nutmeg consumers, beating us badly. But that is not it. I have no doubt that they are shipped from there to our country, the same as pepper, tin, and other Straits produce upon consular invoice certificates obtained there, and I opine that they are a remunerative article of commerce with a margin of 15 to 20 per cent., depending on the sizes of the nuts, with speculation thrown in.

I quote from the same authorities, as in pepper, the exports of nutmegs in 1884 and 1885 from Singapore and Penang to our country and the United Kingdom, viz:

From—	To United States.		To the United Kingdom.	
	1884.	1885.	1884.	1885.
			$102,100 00	$63,510 00

exported hence to England were carried in American bottoms, and those exported to the United States were largely carried by foreign vessels, prominently British steamers.

The nutmeg cultivation is on the increase not only at Penang but in various parts of the Straits Settlements and adjacent Malay states under British protection.

TIN.

Tin continues to be one of the most prominent articles of export, and the mining, therefore, in the peninsula of Malacca, where it is found in various provinces in inexhaustible quantities, employs many thousands of laborers, chiefly Chinese. The mining is that of "flood tin," not rock, and this means that it is taken from the lowlands near the mountains, where it is found in seams or pockets, 10 to 20 feet or more below the surface level, in the shape of, or appearing like, coarse black sand, with here and there a mixture of tin, all particles of gold (dust) in not paying quantity. To get at the stream tin means a great upheaval of soil, dumping of water from the pits, the washing of the exhumed stream tin, and the smelting of the latter (in most places the pumps, washing apparatus, and smelting furnaces or "arrangements" are of most primitive and simple, yet ingenious, character). The ore is smelted in slabs of irregular shape at the mines and sent to Penang and Singapore to be resmelted into regular uniform marketable slabs or blocks, and at the same time purified, and then to be shipped. The principal tin-producing provinces are Larut (pronounced Laroot), a sub-province of Perak, and sundry other localities in Perak south of Larut, and in places north of and east of, but near the Straits Settlements, under Siamese suzerainty, among which "Junk Ceylon," an island north of Penang, near the coast of Quedah (a Malay province under Siamese suzerainty), produces much.

All the tin from this island, Larut, and Perak goes to Penang for resmelting and shipment. South of Perak, the provinces of Salangore, Lingah, Sungi-Ujong, and parts of the settlement of Malacca produce much tin, as also do certain parts of the "Nine States" (Kusare as "Negri Sumbilan") adjoining the states just mentioned on the west side, thus situated in the center of the peninsula, so to say. Some good roads through the jungle, to connect the tin districts, form an outlet of the "Nine States" with the west coast of the peninsula, are now being built by the colonial government (*i. e.*, the latter advances the money and "holds the respective districts as collateral," which in my opinion means about the same). From the mining districts situated south of Perak, just named, and also from the Malayan-Siamese provinces on the east coast, as Patani, Kalantan, and Tringany, and the independent provinces of Pahang (this is also rich in gold, and mines are in operation), the tin is sent to Singapore for shipment. The tin mining, capital and labor, is practically in the hands of the Chinese, or has been thus far; only in Salangore, three or four years ago, Europeans, as owners or as managers and superintendents, engaged in the business. One stock company, formed at Hong-Kong, took lands there and operated them, but somehow or other it did not succeed and "wound up." Another party, headed by an intelligent

and every thing where Chinese labor is wanted. In other parts, especially in Larut and Perak, other Europeans embarked in the enterprise, but I have heard of no success. It is on rich tin lands a battle between Chinese cheap labor with a simple, primitive mode of working, and Europeans with a civilized mode of operation and cheap manual labor where applicable.

Tin during 1884 and 1885 did not experience such violent fluctuations as did some other articles of export; it fluctuated between about $30 and $33 per picul. But during the latter part of 1885 and this year it kept increasing in value slowly and steadily until it got to be as high as $36. The cause of this rise is to be attributed to an essential decrease in the outputs in Larut and Perak, owing to the mines in operation becoming worked out. This should not be understood as if the province or all the tin-bearing lowlands had become exhausted—far from it. It means that fresh pits on new lands, near the worked-out ones, had to be opened, made ready for putting out the ore (to uncover the latter). This is very heavy work; it involves the cleaning and burning of jungle, the district being wild, uncultivated land, and all such land in this country being covered with jungle or swamp, the drainage of the land, digging more shafts, cutting and leveling roads, building huts, &c.

It is only a matter of time and very hard labor—a few months; the ore once uncovered the outputting can begin and become equal to what it was before; thus the price will gradually resume a nominal figure, which I take to be under existing circumstances (stream tin mining) about $30 per picul. Stream tin is also found in the beds of rivers, creeks, and runs near the mountains, and shallow places, and this is taken up during dry spells of weather, and washed by poor Chinamen working independently for themselves; but it is not remunerative, and only affords them a scanty living. In alluvial bottom-lands, where there are seams or large pockets of it, it pays. Nearly all the alluvial lands and swamps near rivers and not far from high hills or mountains on the peninsula of Malacca are tin bearing, and many a rice field covers heavy fortunes. Thorough geologists and mineralogists by first examining the mountains, *i. e.*, the rocks and different strata thereof, have no great difficulty in ascertaining and pointing out in what direction near the base of a mountain (some places for miles are strictly alluvial) stream tin is to be found. In fact, here and there, intelligent Chinamen find it sooner than scientific men, and gold, too. When once, in a great many years to come, tin-bearing paying bottom lands are exhausted, the uplands and mountains stand in reserve for rock mining, which in localities are known to be immensely rich, not only in tin, but also in iron, galena, copper, and precious metals, &c. A new era will then set in, and it is dawning now, if not for tin only, for gold at least; for in Pahang gold mines (two or three) operated by large stock companies with capital from England and Hong-Kong, are in full run, and in Borneo, in the territory of the British North Borneo Company, also.

United States, the same remarks hold

from Singapore and Penang to the United States and the United Kingdom, leaving out continental European countries, viz:

From—	To United States.		To the United Kingdom.	
	1884.	1885.	1884.	1885.
Singapore	$958, 852 53	$729, 790 97	$2, 205, 601 00	$2, 260, 993 00
Penang	416, 014 00	612, 788 00	3, 662, 217 00	4, 167, 314 00
Total	1, 374, 866 53	1, 342, 578 97	5, 867, 818 00	6, 428, 307 00

It should be borne in mind, too, while considering the enormous differences between exports to our country and England, that the latter is a tin-producing country, *i. e.*, Cornwall.

I would also mention that the trade statistics for Singapore show much larger exports of tin to the United States for 1884 and 1885 than does any record of declared exports for the same period, viz, as per trade statistics for 1884, $1,146,805, and for 1885, $824,069, being proof conclusive of "erroneous" reports to the export office of the port by the respective exporters.

RATTANS.

This useful article not only continues to be greatly in demand, but the demand for it increases constantly, and with it, its price; and there is good reason for it. During the first three or four years of my residence here its value ran from about $2.50 for lowest grades to about $5.50 to $6 for the best. There are many grades of it, length, thickness, color, places of growth, &c., coming into consideration. At that time the heaviest exports were to the United States; next came Germany, and the United Kingdom about third. From that time out the demand for it, and with it the cost, increased gradually and steadily until the average value of all grades rose to be at the present time about $13 per picul, and the depreciation of silver had really very little to do with this trebled rise. I think that the most prominent cause is to be found in the fact that the native rattan gatherers on the Malayan peninsula, in Sumatra and Borneo, whence the largest supplies are obtained, had, to keep step with the greatly increased demands of the market, to dive deeper into the fastnesses of the jungle, seek new fields, go much farther from home to cut it, and could, in view of distance and natural obstacles, carry less at a time than was formerly the case, when, at a short distance from his hut and rice fields—say, a mile or two—he could easily find all he could gather and sell, or that he was hired to gather. Increase of population and of cultivation of soil, through immigration or otherwise, with consequent corresponding jungle clearing in certain localities, once very productive in rattans and other jungle produce, had also a tendency to enhance prices, because the rattan will not grow near cultivated land, fire, or smoke; it dies out. Further, it is to be considered that the demand for it for local use and appliances is immense, something little thought of in civilized countries. Where, in the latter, nails, screws, and braces and wire [illegible]

he completes all and knows how to make a very creditable job of it; and in all sorts of handicraft, on shore and at sea, he makes use of the rattan, bamboo, fibers, leaves, and woods that an all-kind Providence has planted considerately for him. So, all considered, I don't look for a decline in the prices of rattans hereafter, and rather for an increase, if the demand remains unchanged. A greater, freer use of the willow and other elastic woods or creepers at home in the manufacture of basket work might tend to keep the price of the rattan normal, but not cheaper.

I am not quite as positive about the exports of rattans to the United States, as to whether the declared exports thereof in this office comprise all exported or as to whether an additional quantity was sold in and sent from England, but on consulting the colonial trade statistics with my record of declared exports and with port statistics anterior to the repeal of the 10 per cent. discriminating duty act, I am inclined to think that re-exportation and sale in England did take place all the more, as well-informed merchants coincide with me that our country buys more rattans than any in Europe. Before the repeal of the said act the United Kingdom was about a good third importer of rattans, as compared with other countries, and now it stands nearly first. Whether the manufacture of rattan goods in Great Britain assumed such vast proportions so as to need more rattans than our own country I have not the means of knowing to a certainty, but I don't believe it just at present. Thinking it might be interesting to have the figures of rattan exports for 1884, and 1885, I quote them from the same authority for the United States, the United Kingdom, France, and Germany, viz:

To—	From Singapore.		From Penang.	
	1884.	1885.	1884.	1885.
United States	$649,744 76	$547,183 45	$5.100 00	$25 00
France	98,847 00	92,749 00	250 00	.....
Germany	73,409 00	212,484 00	4,690 00	4,762 00
The United Kingdom	402,640 00	623,690 00	46,019 00	76,059 00

I may mention that Penang has never been noted for the exportation of rattans. It ships what it receives from Sumatra, on the west side of Malacca Straits, and from the nearest Malay provinces on the peninsula close by; still the preponderance of rattan exports to England is very great over those to the United States.

Rattans are so very essential to sailing vessels loading here for the United States as dunnage and for the completion of a cargo (to fill up the hold), that every encouragement should be given towards their sole export from this their country of growth or production direct to the United States instead of their admittance from Europe, unless a discriminating duty, if imported from Europe, be levied. The same rec-

ommendation for tin and gambier, serving as dead weight in absence of dead

GAMBIER.

Another very important article of export is gambier, of which I have written much in former reports. The cultivation of and trade in it, until delivered to the European exporters, is entirely in the hands of the Chinese, and goes hand in hand, to a great extent, with pepper planting, as the decocted leaves of the gambier plant serve as fertilizer to the pepper vines. The demand for this article has been on the increase; and for various reasons, chief among which, next to speculation, that gambier exhausts the soil in a short time, needing frequent changing. The price of it increased steadily within the last three or four years until at one time it reached about $7.50 against $5 (per picul) previously. Lately it receded to about $6. Gambier is extensively used in Europe and America, chiefly for tanning; also for dyeing, medicinal, and chemical purposes. To what extent gambier from this colony (this port, Singapore, being the only and actual place of and for its export) is shipped via England, and invoiced there for the United States, I have no means of knowing, but I think it amounts to a goodly figure for 1884 and 1885, for which periods I quote the exportations to the United States, the United Kingdom, and various countries in Europe, from the same authorities as above, viz:

To—	From Singapore.	
	1884.	1885.
United States	$482, 843 32	$778, 241 64
Austria	52, 521 00	36, 006 00
France	446, 390 00	354, 791 00
Germany	225, 915 00	216, 982 00
Italy	71, 417 00	45, 443 00
Java (no doubt for Holland)	588, 822 00	485, 520 00
The United Kingdom	3, 727, 078 00	1, 850, 535 00

None was exported from Penang to said countries.

I will not close my remarks upon gambier without alluding to the great adulterations carried on by the planters in the preparation of the article, and to the great frauds committed by the Chinese towkays and middle traders, who supply the exporters with the marketable article already packed in matting, in square pressed bales or cubes.

These frauds, commencing a few years ago little by little in large deliveries, have now assumed very large and alarming proportions, and have naturally become the cause of much vexation and trouble to the European exporters, and most earnest discussions have taken place in the chamber of commerce as to the best means to overcome the difficulty. As the tea trade in China is in the hands of the Chinese solely up to the time of delivery, so the gambier trade in this colony, in like manner, is in the hands of the Chinese, and the merchants (here at least) appear to be powerless. The "Kougkek," or Chinese gambier syndicates, simply say, "You must take it as we have it or you won't get any." No Europeans are engaged in gambier planting, and the exporter is forced to take it at the stipulated market prices, pay goodly

adulterated; that they contain admixtures of pieces of sticks, stones, clay, and lumps of pressed-out gambier leaves, &c. No wonder the Chinese planters, towkays, and middle traders, in great and steadily increasing numbers, outstrip the Europeans, who slave out here in this trying climate to gain a competency on which to retire, by heavy odds, and are enabled to display luxuries in houses, gardens, fine equipages, and horses, alongside of which the local Caucasians almost sink into insignificance. What surprises me is that the colonial government in the face of the serious complaints of the exporters in and outside of the chamber of commerce, takes no steps to prevent these wholesale adulterations, though I am fully aware that in a colony with only one regiment of infantry and a company of artillery, and a police force none too large for such a population (!), where the Chinese in city and country overawe the Europeans and well-disposed natives, by hundreds upon thousands, it would perhaps be somewhat risky to seize and destroy, wherever found, quantities of adulterated gambier. I am investigating this matter with all the means at my command, and shall report results hereafter.

COFFEE.

The export of coffee to the United States used to be heavy during the first years of my residence here, and then fell off gradually from year to year, until now it amounts to little more than nothing. The exports consisted essentially of coffee grown in the province of Bontyne, situated along the north coast of Celebes, near Macassar, and on the island of Bali, situated between Java and Celebes; also in parts of Sumatra not subject to Dutch Government monopoly, and in various other places round about here (in smaller quantities). By far the largest portions came from Bali; next, from Bontyne; and, thirdly, from Palunbang, Sumatra; and all of it was then "coffee Arabica," which means that it was mountain coffee, grown at an altitude of about from 1,000 to 4,000 feet above the sea level (below 1,000 feet this kind of coffee does either not grow successfully or not at all). In our American markets this coffee, exported from this port, used to be known under the name of "Singapore Java," which was a mistake, as it never saw Java, and was not grown on Singapore soil, nor that of the peninsula of Malacca. It would not grow on this island, because no hill is high enough for its successful cultivation; but Liberia coffee, which can be grown successfully on low lands clear down to the sea-coast, does well here, is a great success, in fact, and of fine quality, and the same is true of the peninsula of Malacca, and, in fact, of nearly all parts of the Indo-Malayan Archipelago.

The port of Macassar, so close to Bontyne, commenced to absorb by degrees the coffee crops of that country and to ship it direct from there to transoceanic ports, and succeeded in getting nearly all and in giving the port a greater shipping importance; for, in addition to Bontyne coffee, it received (and receives) many valuable products, not only [illegible] but also from the east coast of Borneo, [illegible] lying scattered

which will prove a serious blow to said port. The same disease has ruined the coffee Arabica plantations of Ceylon, has also made progress in several districts of Hither India, in Sumatra, and Java.

This leaf-disease, known under the name "*Himalaya vastatrix*," seems to be spreading in the coffee-producing countries not only of Asia, but also of South America. As a consequence, coffee crops everywhere, when not an entire failure, are falling short, and prices have risen at least 50 per cent. within the last year, from $13, about, for Bontyne and Bali, to $20 per picul, and other inferior grades nearly as much. The article has become dear, but I think it will not become dearer, or much dearer, so long as coffee Liberia is not attacked by leaf-disease. Here and in neighboring countries and islands it escaped it so far, and I have not learned that plantations in other parts of India have been attacked by it.

Here, on Singapore Island and on the peninsula of Malacca and elsewhere in Malaysia (British, Siamese, and Dutch), the cultivation of Liberia coffee commenced in earnest only about ten years ago. It grew so well and vigorously that the demand for seed became very great; and, as none was attainable here and all had to come from Liberia via London, I remember that as high as 50 cents per seed was readily paid, and it proved a good investment for the planters. It grows in any fairly good soil, be it bottom or hill land, so it is not swampy, and some of the seedlings where well tended and situated commenced to bear after from 20 to 24 months; but it may be safely asserted that the trees yield a good crop in or shortly after the third year, and blossoms, and green and ripe berries studded thickly can be seen at one time on one and the same tree. When well tended and fertilized a little from time to time and kept mulched the yield is very heavy and the beans are very, aye, unusually, large and well formed, resembling Padang (Sumatra) coffee (called in our country Old Government Java) so strongly as to hardly show a difference by which to know one from the other. Under the captions of "agriculture" and "horticulture," in a future report, I shall have more to say about the acreage and localities of Liberia-coffee plantations within my consular jurisdiction and near it, and other items of interest relating thereto.

When about six to seven years ago the first crops of Liberia coffee were sent to this market, some claimed that it was as good as the best coffee Arabica; others claimed that while it had a fine flavor, it was not as strong as the latter, and that it was bitter; and again, others condemned it as a poor coffee that would never pay. Now, as to its being bitter, I can say from my own experience that when roasted in a green or half dry state it has, no doubt, a bitter subtaste as if a trifle of quinine had been stirred up in the water, but not so bitter as to be disagreeable; to the contrary, one rather learns to like this slight bitterness (in well-dried coffee it is hardly perceptible). As to its flavor and aroma, I prefer it to genuine Mocha coffee, and many others say the same. And as I have been alluding to Mocha coffee (Arabian), is it not strange to the outside world that large quantities of "coffee" (the colonial trade statistics make no discrimination between coffee Liberia and Arabica, and call all, no matter whence imported here, only "coffee") are shipped from this port to Arabia (port of landing not named in the

travelers in the Red Sea) lie from north of Aden, stretched out for a goodly distance along the west coast of the Red Sea. The coffee is brought to Aden by caravans and by Arab dhows; and Abyssinia, opposite, sends coffee, considered fully as good as Mocha, to Aden, which port is touched by every steamer going on to Suez and Europe, whether in quest of coffee or other goods, or to discharge cargo or to receive coal and other supplies, and all, whether they have business or not, for the production or obtaining of health certificates.

As to Djiddah, that port as a rule (surely as far as steamers from the far East are concerned) is only visited by steamers chartered to go there to land or bring away Islamitic pilgrims (Hadjis) visiting Mecca. If any coffee is landed there it is for local consumption only, and not for export. The colonial trade statistics show the following coffee exports from this port to Arabia, viz:

Year.	Quantity.	Value.
	Piculs.	
1884	6,130	$72,176
1885	968	12,714

I believe that all this coffee was landed at Aden, because supplies taken by ships and passengers for Djiddah for their own use on the voyage are not reported to the export bureau of the port. What kind of coffee this was and to what use it was put in Aden I know not, but I do know that much coffee is bought under the name of and used in the belief that it is Mocha coffee in our country and in Europe also. How much coffee was shipped from the coast of Malabar, from Java and Sumatra to Arabia during the same said period, I have no means of knowing. The coffees produced in the countries just mentioned are, as is well known, of high reputation.

Whatever the fate of coffee Arabica may be, in consequence of leaf-disease, the ports of Singapore and Penang can export now a good deal of Liberia coffee, and can increase the exports of it from year to year at a pretty high rate over each last.

The exports of coffee to the United States as declared in this consulate amounted to, in 1884, $11,230.81, and in 1885, $48,607.72.

The exports to Australia and countries in Europe, as per port statistics, were as follows:

Exported to—	1884.	1885.
Australia	$2,342	$1,343
Austria	24,556	7,825
France	57,748	3,335
Germany	11,900	30,036
Holland	1,950	635
	7,635	.....
	12,835	18,220

consider second to none when well treated and cleaned, amounted as per port statistics to as follows:

Year.	Quantity.	Value.
	Piculs.	
1884	48,977	$613,008
1885	25,917	351,328

This falling off in 1885 I attribute to two causes, viz: (1) Direct exports from ports close to the countries of production, to the trans oceanic countries of consumption, and (2) to increasing coffee-leaf disease. A large proportion of the coffee received here is partly consumed here and partly sent to Burmah and Upper India for consumption there. Penang has never been noted as a coffee-trafficking port, but receives now the Liberia coffee, produced in the provinces on the peninsula of Malacca, lying nearer to Penang than to Singapore, and also from Deli, Sumatra, where some of the planters plant not only tobacco but Liberia coffee as well.

TAPIOCA.

When I last reported about this article, prices had become very low, and I pointed out that at the figures then existing tapioca planting was not at all remunerative (*i. e.*, about $3 to $3.50 per picul). About six years ago the article saw its palmy days for good prices. It was very profitable then and induced many not only to plant it, but to plant on an extensive, costly scale, and much of it on borrowed capital at a very high rate of interest. The planting necessitated the purchase and putting in place of costly machinery and fixtures for the manufacture of the root into the marketable article. Some of the planters became more or less ruined through the sinking of prices, and those that did not, being wealthy enough to survive it, accordingly, as the roots matured and were taken up, planted in place thereof Liberia coffee with good success, as the soil had become thoroughly loosened and mellow through the deep-striking tapioca roots. And I have no doubt that coffee will in the end prove far more profitable, let the prices for tapioca be what they will. A tapioca planter on this island, a Frenchman, full of energy and hard sense, the owner of about 4,000 acres, of which nearly one-half stood in tapioca, has turned, and is turning gradually all into Liberia coffee. He has now over 300 acres of bearing trees, over three years old, and over 200 of later planting, all in excellent condition, and has given up tapioca altogether. This will pay his losses in tapioca culture and leave him a good income besides, not to mention the great enhancement in the value of the land itself.

The prices gradually and slowly rallied early in 1885, and rose since then to be at the end of that year very nearly as high as six years ago.

The processes of the manufacture of the tapioca root into marketable articles, as "flour," "flake," and "pearl," I have described in former reports and will not now repeat them. Tapioca flour is cheaper than "flake" and "pearl," because it has not to undergo the process of being shaped into "flake" or "pearl" and subsequently toughened by slow roasting and stirring in pans. There is only [illegible]

of "flake" and "pearl" (more "pearl" than "flake"). Shipments of tapioca flour have become rather rare, while those of sago flour increased.

Our country is a good customer and consumer of tapioca. As per declared exports in this consulate, the shipments of it (all kinds) amounted:

1884 to	$108,623 43
1885 to	250,539 34

The trade statistics of the port don't agree with mine in this any more than in other articles of export, showing as follows for all kinds of manufactured tapioca to the United States, viz: for 1884, $91,554, and for 1885, $216,839 (difference to be explained by the exporters).

Penang exports a good deal of tapioca, the product of the provinces on the peninsula near by, but more was exported thence to the United States in 1884 and 1885 according to Penang statistics. The exports of all grades of tapioca to the United Kingdom, as per port statistics, were as follows:

From—	To the United Kingdom.	
	1884.	1885.
Singapore	$573,849	$540,700
Penang	298,230	268,900

Whether any portion of the said exports to the United Kingdom (far exceeding those to the United States) was sold in and shipped from England to our country, and, if so, how much, I cannot prove by official authority, but I have every reason to believe it was the case.

Australia is a fair customer for tapioca, receiving about three-eighths of the total quantity exported to the United States. Continental Europe receives proportionately very little, Germany the most.

SAGO.

When I last reported on this article it was unusually low as compared with former years, and since then the prices not only never rallied, but had rather a further though light downward tendency, notwithstanding that its export rather increased. The secret of the prices slackening, instead of rallying in view of increased exports, is, I think, to be found in greatly increased production and to a great increase in the consumption of tapioca. The chief localities of production are to be found in the southeastern Malay Archipelago, including the Moluccas, when in the absence of rice planting it is the staff of life of the native population, which understands to make a good bread of it from the raw article; also, and prominently in Borneo, which contributes by far the

larger than the whole United Kingdom of Great Britain and Ireland with all their outlying islands taken together, and the resources of the interior in several directions having been tapped, and in parts more or less developed by the said company and enterprising parties, sago, among other products, such as rattans, gums, rubber, and gutta-percha, edible birds' nests, &c., could be exported and sent to Singapore. But aside of this, on the Malay peninsula, here and there, native and even European planters have of late years taken to sago planting. The palm does best in alluvial river bottoms, but will also grow well on good uplands, and its cultivation is on the whole a good safe investment. If, for instance, the heavy timber has been taken off from a suitable piece of land, and one wishes to make the land yield some profit without incurring heavy expenses, all he has to do is to stick pieces of sago palm root at reasonable intervals for good growth into the ground and then leave it alone for about five to six years. By that time the palm will have matured, can be cut down, and the pith taken from it. The yield of pith per palm is about six piculs, worth in the raw state, at present low prices, 80 to 90 cents per picul. From the same root a new growth may be had for many years to come. Sago planting is, therefore, so long as the ground is not wanted for anything more valuable, a very safe and profitable enterprise.

In sago I make two classes, viz, sago flour and pearl sago, because the latter is from 80 cents to $1 dearer per picul than the former.

The exports of pearl sago to the United States as contrasted to former years, fell off greatly in 1884 and increased a little in 1885; but to the United Kingdom, the exports, as compared with the United States, were enormous, as per port trade statistics. As per declared exports in this consulate, the exports were as follows:

To—	1884.	1885.
United States	$3, 953 95	$8, 999 61
The United Kingdom (as per port statistics)	137, 685 00	215, 189 00

In this instance the port statistics show the following exports to the United States, viz: 1884, $3,579; 1885, $8,487.

SAGO FLOUR.

Of this article, the exports to our country were ever so much larger, because it is used for various purposes in manufactures (I think much of it in that of starch), besides cookery and confectionery. Its price being very low, at present only about $2.15, silver, per picul, and the article itself very wholesome and nutritious, it appears to me it should find ready purchase among the masses, and I am rather surprised that not much more of it is directly imported from here. If one-half of what is exported to the United Kingdom is consumed there, then the demand for it must be lively among the masses, besides what is used in sundry manufactures. As per declared exports in this office, the exports of sago flour from this port were as follows:

The port statistics show exports to the United States as follows: For 1884, $34,543; for 1885, $40,324.

The difference between "declared exports" and "port statistics" (also in pearl sago) can be explained by the shippers only. Penang, small quantities excepted, is not a sago-exporting port; none was exported to the United States nor to England.

GUM COPAL.

In the importation of this article the United States exceed every other country by great odds, and, as I look at it, nothing could possibly denote the improvement or the decline of business and manufacture in our country better than the exports hence of gum copal.

The demand for it has been steadily increasing since the beginning of 1884, and its price rose accordingly. Gum copal is a rosin of the earth (but also of trees), though some deny it. When trees exude so strongly as not to give the resinous fluid time to thicken and form gum on the bark, the ground receives it and vegetation covers it up. (I saw this myself). It is found in deposits or layers near the surface of the earth on many of the islands of the Malayan Archipelago, prominently in the Southeastern, with Celebes, Timor, and the Moluccas (much of it comes from Ternate, Amboyna, and Macassar); also from Borneo, Java, Sumatra, and the Malay peninsula, the first-mentioned part of the Archipelago furnishing the most.

To show the enhancement of the price, I will quote from the colonial trade statistics the receipts from all sources, quantity and value aggregated, for 1884 and 1885 at this port, Penang being only a small contributing factor in gum copal for Singapore, viz:

Year.	Quantity.	Value.
	Piculs.	
1884	23,037	$145,708
1885	19,864	153,600

Gum copal is received here in the raw condition, *i. e.*, with earth and ground débris, just as it is dug up by the natives, adhering to it, and has to be cleaned and "chipped" before being exported. The "chips" and dust are occasionally also exported (they contain a fair percentage of pure gum) at low prices. It is a matter of interest (!) as well as curiosity to note in the colonial trade statistics what effect this "cleaning process" has on the weight and value of the article between imports and exports, as follows:

Year.	Imported.		Exported.	
	Quantity.	Value.	Quantity.	Value.

without being reported at the port import bureau, since to judge from said figures it cannot well be accepted that at the end of 1885 any stock was held for exportation in 1886. How the "dust and chips" were or are to be accounted for, since as per statistics 795 piculs (clean or unclean? if claimed "clean," all the worse, since it arrives here in the unclean state) were exported in excess of receipts. If it is claimed that those statistical figures are correct, with "dust and chips" (and there were shipments of it) nowhere mentioned or accounted for, it will take a smarter mathematician than I am to explain this most astonishing "excess." The excess of $29,364 is easier explained, *i. e.*, in charges of receiving, shipping, weighing, cleaning, packing, shipping, insurance, commissions, &c., though very large. The statistical figures show upon calculation that for the said two years the average import price was $6.97\frac{3}{4}$ and the average export price was $7.52\frac{1}{5}$ per picul. This, I think, comes nearer being right. Gum copal arrives here in promiscuous conditions of purity or cleanliness; some of it is so full of foreign adhesions as to command only from $4 to $5 per picul, and from that up (at present) to about $11 for best. The margin is thus very great and the room for imposing and cheating in exports also. Our gum-copal importers can therefore not exercise too much care in their purchases, and my opinion is that it is best to buy it out here on commission in the uncleaned state from first-class firms only, and to have it cleaned at home.

As per declared exports in this consulate, the exports to the United States (which I will first quote and to other countries below the same) and, as per trade statistics, to countries in Europe were, viz:

Exported to—	1884.	1885.
United States	$93,621 00	$138,110 40
France	8,723 00	2,277 00
Germany	300 00	.....
Holland	11,000 00	.....
Italy	18 00	.....
The United Kingdom	50,377 00	54,427 00

The port trade statistics show the following gum-copal exports to the United States, viz, for 1884, $87,932; for 1885, $104,694.

The "discrepancies" between consular declared exports and port statistics can only be explained by the shippers in their reports to the export bureau.

GUM DAMMAR.

This is a tree gum also used in the fabrication of varnish, but dearer than gum copal. It is sent to this market from Borneo, the Malay peninsula (several provinces), Java, Celebes, Sumatra, other Malay islands, and Siam. The whiter, cleaner, and clearer it is (light amber), the more it fetches; though there is a flesh-colored kind which finds much favor. The difference in price between gum copal and dammar is nearly 50 per cent. in favor of the latter (*i. e.*, about $12 and $18). This gum is not at all scarce in the forests of Malaysia; to the contrary, quite abundant, and if the natives applied themselves more to gathering it the

Years.	Imported.		Exported.	
	Quantity.	Value.	Quantity.	Value.
	Piculs.		*Piculs.*	
1884	8,694	$82,091	8,365	$88,937
1885	11,844	114,006	11,791	105,821
Total	20,538	196,097	20,156	194,758

Of this were exported, as per declared exports in this office, and as per port statistics, the following:

Exported to—	1884.	1885.
United States	$16,387 10	$25,082 01
Belgium	152 00	1,100 00
France	25,365 00	8,160 00
Holland	408 00	.....
Italy	3,416 00	.....
The United Kingdom	25,885 00	50,491 00

The port statistics show the following exports of the same article to the United States, viz: for 1884, $11,709; for 1885, $23,852. In this article, also, the shippers only can explain the above exposed differences between declared exports and port statistics.

GUTTA-PERCHA.

The demand for this, nowadays indispensable, article remained strong, and fortunately the supplies received appear to have been up to demand. How much longer this will be the case in this part of the world is now problematical. The gutta-percha and rubber trees have well-nigh disappeared from the forests near (*i. e.*, several miles) villages or settlements throughout the Indo-Malayan Archipelago, because the natives in gathering the milk have been cutting down the trees to get all there is in them, instead of judiciously tapping them. The supplies of gutta and rubber, therefore, are obtained from remote fastnesses of the jungles. Both the British and the Dutch Governments are doing all they can, not only to prevent the wholesale slaughter of these immensely useful trees that take such a long time to grow before they are vigorous enough to be tapped, but to replant or plant many in favorable locations. The chief supplies at this port are received from Borneo, Celebes, a number of islands in the Eastern and Southeastern Archipelago, the Malay peninsula (more from the east than the west coast, because less settled), Siam, and from Sumatra, which is the heaviest contributor, and sends a portion to Penang as well. Having described the methods observed by the natives for obtaining gutta and rubber and preparing them for the market, and how fraud and deception are [illegible] of them by mixing stones, lead, iron, &c., in the [illegible] them beyond saying

Year.	Imported.		Exported.	
	Quantity.	Value.	Quantity.	Value.
	Piculs.		*Piculs.*	
1884	53, 911	$1, 869, 153	50, 093	$2, 029, 402
1885	45, 006	1, 444, 406	45, 346	2, 195, 195
Total	98, 917	3, 313, 559	95, 439	4, 224, 597

This trade evidently paid the exporters, but more especially the Chinese and Arab middle trades, pretty well. Of the foregoing was exported—

Exported to—	1884.	1885.
United States	$26, 857 47	$61, 886 98
France	54, 680 00	89, 690 00
Germany	19, 470 00	16, 545 00
Holland	.....	9, 670 00
The United Kingdom	1, 924, 291 00	2, 195, 195 00
The United Kingdom from Penang	43, 601 00	8, 050 00

How much of the said gutta-percha exported to the United Kingdom was sold there and shipped thence to the United States I have no means of knowing, but I presume a good deal.

As per port statistics, the exports to United States amounted to, in 1884, $28,702, and in 1885 to $104,980. In this instance, too, the shippers only can explain the "wonderful discrepancies" "between declared exports" and port statistics.

RUBBER (INDIA AND BORNEO).

The colonial trade statistics make two classes, viz, "India rubber" and "Borneo rubber." If they made but one class and called it "Malay rubber" they would simplify matters and state the facts at the same time, because both classes are produced in and received from the same islands and districts in the Malay Archipelago and Malay peninsula as gutta-percha, only that the latter is taken from the gutta and the former from the caoutchouc tree, of which there are several species. I would hardly turn my head for the difference between any of them, the treatment of the milk in converting it into marketable rubber being far more important. The trade statistics show that "India" rubber is imported here from Borneo, and "Borneo" rubber from the Malay peninsula, sundry islands in the archipelago, and from Sumatra, while the cost of either is about the same. I therefore, on my own records and reports of declared exports, call it all "Borneo" rubber, because by far the most is imported and exported under that name, as I shall show below. The same remarks hold good in rubber as in gutta-percha regarding the future preparation and sale of the article.

As per port statistics, the following were the imports of rubber from all sources at Singapore, viz:

Year.	Articles.	Imported.		Exported.	
		Quantity.	Value.	Quantity.	Value.
		Piculs.		*Piculs.*	
1884	India rubber	842	$39, 387	237	$11, 050
1885	.....do	336	14, 122	284	

This is a strange showing indeed, that while 1,178 piculs of India rubber were imported in two years, only 521 piculs were exported; and that while only 15,531 piculs of Borneo rubber were imported, 16,063 piculs were exported. I am consequently inclined to think that the best part of the difference of imports over exports of India rubber, viz, 657 piculs, was probably exported and reported under the name of Borneo rubber, as that article shows an excess of 512 piculs in exports over imports. This, too, is an "item" that only the shippers can explain, though commercially I hardly think it made a material difference.

The following were the exports of rubber to the United States as per declared exports in this office: In 1884, $30,728.28, and in 1885, $45,559.30; total for both years, $76,287.58.

The port statistics report the following exports of rubber to the United States:

Articles.	1884.	1885.
India rubber	.....	$1,485
Borneo rubber	$15,680	10,532

which gives a total of $26,212 for Borneo, and a grand total for both kinds of $27,697 against $76,287.50 actual exports declared in this consulate, and therewith a difference and discrepancy (?) in favor of the latter of $48,590.50, which, also, can only be explained by the shippers through corrected reports to the port export office.

The port statistics show exports of India rubber and Borneo rubber separately to the following European countries, viz:

Whence and whither.	1884.	1885.
India rubber.		
From Singapore:		
French Cochin China (for France)	$2,110	.....
France (direct)	.....	$2,110
Germany	4,200	.....
The United Kingdom	4,700	10,063
	11,010	12,173
From Penang:		
France	1,390	.....
Germany	750	.....
Holland	400	.....
The United Kingdom	60,028	38,890
Total from the colony	73,578	51,063
Borneo rubber.		
From Singapore:		
Belgium	1,080	.....
France	96,100	103,805
Germany	1,080	.....
The United Kingdom	242,655	220,157
	340,915	323,962
	5,400	.....
	18,907	7,769

Malacca canes, &c., to be reported upon. My tables of exports, already forwarded to the Department, show, both in quantity and value, what business there was done in them as far as our country is concerned; and, fearing that this report will become too long, and having carefully reported about the same in former reports and in detail, I will dwell briefly on the same, making such remarks as seem to me most pertinent.

GUM BENJAMIN.

This is a tree gum received here chiefly from Sumatra and Siam proper and (not much) the Coromandel coast and the Philippine Islands. Its smoke being very aromatic, it is therefore chiefly used in sundry places of worship by Christians, Islamites, and Pagans alike, as incense, and many natives of Asia, who can afford it, burn it to give fragance in their dwelling-houses. As per port statistics, the following were the imports and exports at this port of said article, viz:

Year.	Imported.		Exported.	
	Quantity.	Value.	Quantity.	Value.
	Piculs.		*Piculs.*	
1884	7,312	$233,900	7,112	$235,638
1885	7,428	206,788	7,383	217,066
Total	14,740	440,688	14,495	452,704

Of this, exports to nearly all the countries in Europe, including the United Kingdom, which received by far the most, took place as follows, per trade statistics (to all), viz:

Year.	Exported from—	Quantity.	Value.
		Piculs.	
1884	Singapore	1,687	$110,921 00
1884	Penang	436	19,173 00
1885	Singapore	2,307	116,514 00
1885	Penang	1,228	55,905 00
	Total from the colony	5,658	302,513 00

During the said periods the United States received only about $15,000 worth from both Singapore and Penang direct, and I therefore presume that much more was sold in and shipped thereto from England.

GAMBOGE AND STICKLAC.

Both articles were shipped only in small quantities to the United States. By far the largest portion received here is exported to England, and it is from there, I presume, that supplies needed in our country are drawn. Why they are not imported direct from here, the original market of receipt and shipment, I cannot understand, both being useful and important articles.

is a dye stuff. Gamboge exudes from a certain tree like gum or rosin. Of gamboge there was imported at this port, as per port statistics, as follows, viz:

Year.	Imported.		Exported.	
	Quantity.	Value.	Quantity.	Value.
	Piculs.		*Piculs.*	
1884	826	$35,834 00	708	$38,221 00
1885	315	18,624 00	313	18,658 00
Total	1,141	54,458 00	1,021	56,879 00

Of sticklac were imported, as per port statistics:

Year.	Imported.		Exported.	
	Quantity.	Value.	Quantity.	Value.
	Piculs.		*Piculs.*	
1884	4,329	$52,027 00	4,240	$54,460 00
1885	8,717	92,869 00	8,167	88,864 00
Total	13,046	144,896 00	12,407	143,324 00

While gamboge appears to be exclusively the product of Cambodia and Siam proper, *i. e.*, the Menam Valley (with tributaries), sticklac is nearly so. Small quantities received from Sumatra form the exception.

DRAGON'S BLOOD.

This very interesting article is the product of Sumatra, the province of Djambi, and also, but much less, of parts of the west coast of the Malay peninsula, north of Province Wellesley, under Siamese suzerainty. It is a dye-stuff, and may also serve as a paint in art painting. The article comes into the market prepared and put up in two different ways, viz, in cakes or lumps about $1\frac{1}{2}$ inches thick, or in small tablets (plug-tobacco like), or sticks about 8 to 9 inches long (the thickness of an ordinary stick of licorice), both tablets and sticks being well wrapped or rather packed into palm leaves. Like most decoctions from leaves or woods it yields to heat (rosin-like), and palm-leaf wrapping prevents flowing. It is derived from a red flower, of which I only know the Malay name, viz, bunga-cosumba, and is the solid extract (the result of boiling down and evaporating) of said flower. It varies in price from $20 to $50 per picul, all depending on the purity of the article, since adulteration is resorted to, such as mixing brick dust or other foreign [illegible] still warm, before being poured into molds. [illegible] $50 per picul, re-

No. 2, looking like a thin plug of tobacco (about 1½ by 7 inches) and wrapped into palm leaf, is purer, more solid, but not free from adulteration.

No. 3 looks like a thin, long stick of licorice, and has a palm-leaf wrapper over all, with both ends closely tied and thread wrapped over all the entire length. It is very solid and said to be a special preparation by grinding up the extract with a little oil, which, it would seem, tends to give solidity when dry. Adulteration in this preparation would seem to me almost impossible, since by breaking a stick in two and holding a broken end to the light any admixture of any substance in the least rough and not exactly the same color as the true extract would show itself.

No. 4 (at $50) is in cake and looks different from all the rest (from the Malay peninsula). In color when broken it looks like dry blood with a purplish subtint. In rubbing it, it feels as smooth as wax and appears to be full of closely packed granulations or minute globules. Its volume is ever so much lighter than the same volume in No. 1, at $20; it is no doubt pure and genuine. Consequently there would be, in my opinion, economy in buying the last mentioned, *i. e.*, the dearest kind, being the best.

Dragon's blood is not always abundant in this market (the only one, I believe). At times it is cleared, and produce exporters, on receiving orders, find it at times difficult to fill them. What seems strange to me is that the said flower, being strictly indigenous, is not extensively planted and more of the article prepared. I think it would pay. As per port statistics, the imports and exports of this article were as follows, viz:

Year.	Imported.		Exported.	
	Quantity.	Value	Quantity.	Value.
	Piculs.		*Piculs.*	
1884	340	$9,370 00	280	$9,567 00
1885	1,054	21,090 00	375	15,727 00
Total	1,394	30,460 00	655	25,294 00

The Chinese use this extensively, hence the great preponderance of imports over exports, besides what was held for speculation. Penang imported and exported some, about the one-fourth of the foregoing.

OILS.

Essential oils (extracted from lemon grass, patchouli, nutmegs, and aromatic leaves and flowers of any kind) form a fairly important article of export from this port. At present there are but two laboratories for the distillation of this article. The distillers are also the planters of the aromatic leaves, among which lemon grass holds a prominent place, and their products, from all I can gather, have a good reputation, and our country receives a goodly proportion of the

1885 to $11,706. It is my opinion that these amounts are not correct, that much more was both manufactured and exported, but probably not reported to the export office. There is such an abundance of a variety of aromatic leaves, flowers, roots, barks, and woods hereabout and in all Malaysia that it surprises me that it is not more availed of and this kind of fabrication extended.

CANES AND STICKS.

Malacca canes, a species of rattan thicker, shorter jointed, and smoother than the usual rattan, are not mentioned in the port statistics under that name, but are coupled with "sticks," *i. e.*, "canes and sticks," and therefore the exact amount of exports and imports of either cannot be given, notwithstanding that the trade is of some importance. The Malacca canes make about as handsome, tough, and durable a walking cane as I can think of, and the thin ones answer well for carriage-whip handles. This kind of cane is not nearly as plenty as the rattan, and is only found in certain localities far in the interior of dense jungles, generally near the base or on the lower declivities of mountains. They are received here mostly from the Malay peninsula, Sumatra, and Southern Borneo. The port statistics quote the following imports and exports of "canes and sticks":

Year.	Imported.	Exported.
	Value.	*Value.*
1884	$83,889	$61,470
1885	63,462	47,610
Total	147,351	109,080

This shows a falling off in the receipts of said articles and that a large portion remains here. Foreigners visiting this port buy large numbers thereof to take home with them. It is interesting to note in the statistics that during said two years Germany and Great Britain received more "canes and sticks" than all the other countries to which exported.

SEA-SHELLS.

For receiving and shipping sea-shells of great variety in colors, forms, and sizes, Singapore is very important, and a great many kinds of shells, which, during the first few years of my residence here, were only bought by travelers, naturalists, and collectors of curios, at nominal low rates, are now eagerly sought and bought by agents and firms for shipment to Europe and our country, where they are used in the manufacture of a variety of articles, especially in the fancy line of goods. They are received here from all parts of the Indo-Malayan Archipelago, coast of China. I divide them, as in the commerce of the shells, (2) assorted shells,

and thence exported; but it may also be assumed that the fisheries do not yield as well any longer as they used to, and the article is steadily increasing in value. The port statistics show the following imports and exports in 1884 and 1885:

Year.	Imported.		Exported.	
	Quantity.	Value.	Quantity.	Value.
	Piculs.		*Piculs.*	
1884	3,110	$108,928 00	3,032	$123,554 00
1885	2,708	130,872 00	2,459	104,538 00
Total	5,818	239,800 00	5,491	228,092 00

By far the largest portion of the foregoing was exported to the United Kingdom.

Assorted sea-shells, or "shells of sorts," are neither imported nor exported by weight, but in almost any way one can buy them from the natives. Much depends on a good, middling, or poor assortment, too many of one and not enough of another kind, more or less marketable or common, whether clean, bright, &c. There is much guess-work as to quantity in buying them, as they are nearly always bought by the boat-load or basket, or in case of rarer ones, by the 100 or 1,000, if counted into assortments. And in exporting them they are nearly always invoiced per assortment, at so much per 1,000. Certain sorts are in very great demand and command good prices. As per port statistics, the imports and exports thereof were as follows in 1884 and 1885, viz:

Year.	Value of imports.	Value of exports.
1884	$41,756	$28,641
1885	12,849	13,916
Total	54,605	42,557

The difference in imports over exports may safely be accounted for as sold to local collectors (travelers, naturalists, curio hunters, &c.). In this instance France received by far the largest proportion of that exported; the United Kingdom only a few hundred dollars' worth.

Green-snail shells are a "land shell" strictly, of short, spiral form, about 1 inch long and of about five-eighths or three-fourths inch diameter in the thickest part. In color it is a pale-green lemon color, suffused with yellow, very pretty to behold. It is common pretty much throughout Malaysia, but the Mergui Islands, on the west coast of Tenasserim, contributed a large proportion of those exported—nearly one-third. During the first few years of my residence here, these shells, beyond purchases by naturalists and curio hunters, did not enter into commerce at all. Gradually, however, they found their way into commerce for export, to be made into small buttons for kid gloves, as I

Year.	Imported.		Exported.	
	Quantity.	Value.	Quantity.	Value.
	Piculs.		*Piculs.*	
1884	3,167	$22,397	3,242	$32,263
1885	3,573	29,142	3,473	30,975
Total	6,740	51,539	6,715	63,238

The quantity exported appearing greater than that imported, I presume that quantities were received from native packers without being reported at the port import office, which occurs in this port often enough, there being no custom-house and no duty on imports or exports. Besides, plenty of such shells could be gathered by natives on this very island, where they are to be met with in nearly every garden having shrubs and trees (it is a tree shell), and many other kinds, among which some of them very handsome. Penang being nearest to the Mergui Islands, Tenasserim, and Burmah, imported and exported about one-half of the quantities above shown.

I have thus reported on the most important articles of "Straits produce" exported from this port and the colony of the Straits Settlements, with the experience a long residence has given me and with such figures and facts as were attainable. For brevity's sake I have left out the minor, less interesting or important articles which now and then are shipped to the United States. In a future report I may allude to them and sundry other interesting subjects connected with or related to the trade and enterprise of this colony.

There is much that is interesting here, but cannot be satisfactorily given in short, condensed reports, however useful they might prove to American trade and enterprise and generally instructive to the public. But standing greatly in want of increased clerical assistance in consequence of steadily increasing business and work in this consulate, I find no time for writing reports and compiling statistics, except now and then when current business and routine work is not so pressing, which does not occur often at all. I ask consideration, too, in view of the fact that this is a trying, extreme tropical, and, at times, insidious climate, and that one, let him live ever so carefully, is apt to suffer now and then from the effects of it, combined with unremitting work day after day.

A. G. STUDER,
Consul.

UNITED STATES CONSULATE,
Singapore, March 25, 1887.

TURKEY.

SYRIA.

Annual report of Consul Bissinger.

AGRICULTURE.

The agricultural condition of Syria, officially known as the vilayet of Syria, for the period under review—July 1, 1885, to June 30, 1886—has not been, on the whole, very satisfactory. In many districts one or more of the crops, such as silk, wheat, olive, orange, grapes, &c., have failed. The exact area under cultivation it is difficult to ascertain, but is comparatively limited, owing to the extreme indolence of the natives. The great hindrances to agricultural progress are the sparseness of the population, want of roads, and want of capital; but above all, the oppressive taxes form the greatest of all the obstacles. The Department has already been made aware of the unjust distribution and collection of the "Takhmiss" tax, which proved so oppressive to the interests of both the land proprietor and to the farmer. Many a fellah, not being able to pay this tax of 5 per cent. of the assessed value of the land tilled, irrespective of good or bad crops, was obliged to sell his property in order to avoid being prosecuted by the Government's officials.

The complaints of this suffering class of its subjects having been repeatedly brought before the Sublime Porte, orders were recently sent to the high functionaries of this province to abolish the "Takhmiss" tax, and to revert to the old system of "tithes" taxation, by which method the farmer yields to the Government one-tenth of the actual produce of his land, to which a "surtax" of two per hundred has now been added. The tax collected by the Government under the "Takhmiss" system during the past year amounted, in Syria, to $1,014,076. The farmer had scarcely had time to enjoy the remission of this onerous "Takhmiss" tax before the Greek question arose and compelled the Imperial Government to call under arms thousands of the peasantry who were peacefully following their pursuits, thus totally abandoning large tracts of land, which might otherwise have yielded abundant crops.

Up to the present time very few modern agricultural implements have been introduced into this country. All the operations of husbandry are yet performed in the most primitive manner, and tilling is still done by the antediluvian wooden plows, which are usually roughly shod with iron, as the people are generally too poor to cultivate the land in an economical manner by the aid of machinery; but it is not only his poverty that deters the native plowman from exchanging his rude implements for the more modern ones of the Western nations, but also the total absence of good mechanics in the interior who could undertake the necessary repairs in an emergency. While it is quite true that, generally speaking, the fellaheen are not in affluent circumstances, there are also those who are well to do, and even large estates belonging to

penses of reaping, as well as the "tithes" tax, taking for his share of the profit three-fourths of the produce; in the more sparsely settled parts of the country a system of leasing the land prevails; but the fellaheen prefer the "share," or "profit," system, as by it no capital is required. American reapers have found their way in limited numbers into the plains of Mesopotamia, and are, I am credibly informed, working splendidly near Harran, the ancient home of Abraham.

Improved American farming implements, neither too expensive nor too complicated, would find a limited market in Syria, and their superiority over the primitive native tools of the country would soon be recognized and open up the field for a remunerative trade to us. The French have recently introduced some of their farming implements, such as plows, reapers, and a sort of corn mill, in the plains of the Bekaâ, but I have not learned that their efforts have been crowned with success; at least it has not induced the native farmer to exchange his ancient tools for the modern French machinery, to any appreciable extent.

A German-American mechanic, established in business here, has just returned from Homs and Hama, where he went in the interest of a German commercial association, whose representative is now visiting Syria with a view to introduce all kinds of German agricultural machinery and selecting suitable local agents for their sale; he put up a German thrashing machine, made after an American system, and fully shares my belief that improved, low priced American farming implements of a simple construction, not too heavy, or too easily put out of repair, could be profitably marketed here. The Germans are at present making great efforts to extend their commercial and industrial relations with Syria, by forming so-called trade associations, whose agents visit the principal commercial centers of Syria, such as Beirut, Damascus, and Aleppo, exhibiting samples of the various branches of trades they represent and appointing everywhere local agents to solicit and to receive orders. This method of the German manufacturers and merchants in reaching a foreign market, which involves comparatively little capital, seems to me at once efficient and inexpensive, and is well worthy of the earnest consideration of those of our manufacturers at home who are desirous of sharing in the commercial advantages of this new and continually growing market.

The *wheat* crop in the Syrian plains has been a middling one only, owing to the insufficient rainfall during last winter, while the Aleppo district yielded a most abundant harvest. The export of this cereal to Europe from this country is decreasing from year to year. The cost of moving the crops from the interior to the sea-port is the greatest obstacle to the material progress of the country and the main impediment to exportation. All modern modes of transportation are lacking, the camel being the only means by which the transit is accomplished. It is related that out of three bushels of wheat carried from the interior towns in the Hauran to the seaboard, the camel will consume one, the camel driver will claim another as his pay, leaving but one out of three avail-

[illegible] may be, and probably is, an exaggeration, but the excessive cost of

Latakia, and Tripoli. All the wheat consumed in the city of Beirut and the surrounding regions is brought from the interior or from towns along the Syrian coast. Its present market price ranges from $1.22 to $1.55 per keiley, equal to 60 pounds, according to quality.

In many parts of the country where the fellaheen are very poor, bankers and wealthy merchants make pecuniary advances to the farmers at rates of interest varying from 10 to 15 per cent. and sometimes even more. At harvest time, and before the crop can be removed, the inexorable tax gatherer collects the "tithes" tax, *i. e.*, he takes the tenth part of the entire crop grown; then the banker receives as his share, in wheat, the amount of his claim, with interest, not, however, at the prevailing market rate, but at a price previously agreed upon, which is generally below the market, and consequently detrimental to the unfortunate farmer.

It is impossible to ascertain the exact quantity of this commodity raised in Syria, and the figures, even if accessible, would be too unreliable to be of any service in this report.

Barley is grown where wheat is raised in this part of Turkey, but in much smaller quantities, and is almost wholly consumed at home, a very small percentage only being exported to Algiers and Tripoli (of Barbary), and sometimes to England, where it is made into malt. The price of barley during the year varied from 53 to 61 cents per keiley (60 pounds).

Sesame, an annual herbaceous plant, from the seeds of which oil is expressed, is cultivated principally in the plains of Hama and Homs, in the Hauran, the littoral of Latakia, and Sidon and in the Bekaâ. Its ports of exports are Haifa, Acca, and Latakia. It is packed in sacks of 60 to 70 okes (170 to 200 pounds), and shipped to Marseilles and Genoa in considerable quantities. The best sesame comes from Southern Syria, the Latakia district producing an inferior quality.

Corn is grown in some parts of Syria, but in much smaller quantities than wheat, and is consequently of minor commercial importance.

Oats are almost wholly unknown here.

Cotton is planted more or less throughout Syria, but not in sufficient quantities to affect the markets of the world; its inferiority, farther deteriorated by the little attention bestowed upon its cultivation and cleaning prevents it from becoming an important article of export. From 1862 to 1864 the sudden rise in price brought large tracts of land under cultivation, and during that period cotton was the most important item on the export list, but this has long since ceased to be the case and the present quantity that leaves the country is very insignificant indeed.

Cotton will probably never thoroughly thrive in Syria, at least not under present conditions. The inferior staple needs improvement by the introduction of exotic seed; but this has its difficulties. American seed is not suited, owing to the want of proper irrigation, which the nature of the country and the poverty of the fellah cannot overcome, and the Egyptian is subject to the vicissitudes of the climate and requires extra care and attention; the planters, therefore, prefer the smaller but surer returns from the indigenous seed, which needs much less care.

Silk.—The silk crop of last year can scarcely be called an average one, the total number of cocoons amounting to only about 2,000,000

den change in the weather during the month of May, and at the most critical period, did much damage to the silkworm.

The disease of the native cocoon of Syria first showed itself in 1851, and has since caused its almost total destruction. It is alike remarkable for its great size and the superior quality of its yield; but all remedies proved useless, and recourse was had to Cyprian, Candian, Egyptian, and Japanese seeds in turn.

In the vilayet of Syria, outside of the Lebanon, the Beirut and Tripoli districts, and the regions of Hasbeya, Rasheya, and Baâlbeck, in the Damascus district, are the principal points of silk culture, of which Beirut is its great commercial center. Thousands of the peasantry find profitable employment in the rearing of the silkworm, as comparatively little care is needed in its cultivation. The cocoons are sold to the numerous silk factories, where girls from nine to eighteen years of age are employed in the various manipulations of spinning and reeling; boys and men are less frequently met with in these establishments, for girls show more patience and application and evince greater skill.

Since 1838 much progress has been made in the method of reeling, the native system preventing, up to that time, any considerable quantity being exported to Europe, the surplus crop going chiefly to Egypt, Morocco, Bagdad, and various parts of Turkey.

The improvements made are due to a French gentleman, who, in 1840, established a silk factory on the French system on Mount Lebanon, and since then France has become a large consumer of the native raw silk, commercially known under the appellation of "grège." It is also exported in limited quantities to Egypt, Cyprus, and Candia.

As America has made gigantic and rapid strides in the manufacture of all kinds of silk stuffs, laces, &c., it is a matter of some surprise that no attempt has yet been made to import the native raw silk direct from Syria instead of through Marseilles and Lyons. There are reputable houses here in Beirut engaged in silk culture whose commercial integrity and responsibility is beyond question, and who have repeatedly assured me that they are not only ready, but very anxious to enter into direct commercial relations with the manufacturers of the United States; they have watched with keen interest the unprecedented industrial progress that has been made in the United States within the past few years, and naturally covet a greater share of its trade.

It should not be, it seems to me, very difficult for our silk manufacturers at home to understand that the commissions now paid to Marseilles and Lyons houses, through whose agency the Syrian silk now reaches the United States, could, by direct relations with the Syrian silk-growers, be saved to them; and of the feasibility of direct intercourse between Syria and the United States there can be no question, for it was practically demonstrated in 1884 by direct importation of Persian raw silk from Teheran by a manufacturer of Paterson, N. J. There is frequent and direct steam communication between Beirut and Liverpool, and freight rates are very low, and I am fully persuaded would result in active and profitable direct and the Syrian

damage to viticulture in the provinces of Malaga, Granada, Almeira, and Murcia, in Spain, not to mention other countries, has not, so far as I am aware, invaded this part of the globe of late.

Grapes are consumed fresh in large quantities; they are also used in preparing a sort of marmalade called "Debs," for home consumption, and dried to raisins. Large quantities of raisins were exported to France and Egypt during the year. Prime quality is now worth from $22 to $25 per kantar of about 570 pounds. A French wine press has been established at Shtora, in the plains of the Anti-Lebanon, and is producing a very good and wholesome white wine, which finds a ready market in this country and Egypt. It is generally sold in the ordinary wine-bottles at an average wholesale price of about 6 cents per bottle. When two or three years old it is said to rival the best Burgundy. There are many other kinds of white, red, sweet, tart, and mild wines made in this country; but the best is produced in the Lebanon. For the last few years small quantities of the Lebanon wine have been exported to England and France, where they were favorably received on account of their entire freedom from all foreign ingredients.

Licorice root.—The licorice-root crops have become a source of immense revenue to the inhabitants of some parts of Mesopotamia and the country to the north of Damascus. The American firms engaged in this business have established hydraulic presses in the principal ports of exportation, such as Beirut, Tripoli, Alexandretta, and Suedieh, for pressing the root into large bales prior to shipping it to the United States. This article, which was formerly exported to Egypt only in small quantities and used in the preparation of a refreshing beverage during the summer season, and put to a similar use in Damascus and other Syrian towns, is now attracting the earnest attention of many native merchants, owing to its increased demand from the United States, and prices have consequently materially risen. The total quantity of licorice root exported to the United States during the year amounted to about 7,660,341 pounds, valued at $131,831.

Oranges and lemons.—For the last few years the orange and lemon trees have been subjected to a disease, the exact nature of which up to this time it has been impossible to ascertain, seriously affecting the quantity of the fruit, but without any perceptible deleterious effects to quality. Hundreds of trees have withered and died during the year. The export trade in oranges and lemons of this country is still conducted on a comparatively large scale. About 26,000 boxes of lemons and 10,000 boxes of oranges, each box containing 300, are annually shipped from Beirut, Sidon, and Tripoli to Russia, England, and Austria. Lemons and oranges are rolled in thin (tissue) paper and placed in wooden boxes when prepared for exportation. They are generally plucked when only half ripe and even when yet quite green, to prevent their decaying while in transit. The average wholesale price is 32 cents per hundred.

Olives.—The olive yield in the Beirut district was less than an average one, and the price of oil was comparatively high; but in the Damascus district the crops were quite satisfactory. Olives are universally used by the poor and even the middle classes in Syria as an article of diet. Those grown around Damascus are large and green but not very juicy

$60,000. The oil obtained from this species is good, and if refined (for which process no modern appliances exist in this country) would prove the best in the world for table use. Limited quantities of it are exported every year to Europe. The present market price of sweet oil is from 48 to 50 cents per bottle of $5\frac{3}{5}$ pounds; inferior or second quality oil is worth from 40 to 42 cents.

Tobacco.—The tobacco plantations of last year have yielded the usual average crop. This article is cultivated in the districts of Sidon, Mount Lebanon, Tripoli, and Latakia. Mount Lebanon and Latakia rank first as to quality, Sidon and Tripoli coming next. The Latakia tobacco is called *Aboo-riha* ("Father of scent"), and is largely exported, notably to Egypt and England, and in smaller quantities also to the United States. It is dark in color, owing to its being fumigated by the Nusairiyeh, dwellers of the mountains within whose district it is wholly grown, by the smoke of the "elezzer" tree, which imparts to it a very aromatic flavor, highly esteemed in Egypt.

The districts of Upper and Lower Koura, in the Lebanon, produce a fine quality of tobacco, but that known under the name of *Djebeili* is superior to any grown in the mountains; it is much sought after by reason of its agreeable aroma, and has the advantage of not leaving the disagreeable after-taste, as, for instance, the Macedonian tobacco. It is not exported, but only grown in sufficient quantities for home consumption.

Tobacco in Turkey is a state monopoly, farmed out for certain considerations and under certain restrictions to an association composed of a syndicate, at the head of which are *Die Oesterreichische Credit-Anstalt* at Vienna, Mr. S. Bleichroeder, the opulent banker at Berlin, and *La Banque Impériale Ottomane* at Constantinople.

This association is known as the "*Tobacco Régie*," with its seat at Constantinople, and is subject to the Ottoman laws. It has agencies throughout the entire extent of the Turkish Empire, wherever there may be any need of them, for the sale of tobacco to dealers.

Tobacco growers are obliged to obtain their authorization from this *régie*, simply stating location and extent of land which they intend to place under cultivation. By the 1st of August in each year the previous crop must be transported to the warehouses, which the régie provides for this purpose. No tobacco can be sold by the planter for interior consumption, but he may export it subject to certain restrictions.

The "Lebanon" territory is not embraced in this monopoly, and its inhabitants are entirely free agents in the cultivation of the weed.

GENERAL REMARKS.

Many of the causes that have almost totally destroyed the crops of the country might have been avoided, in part at least, if the fellaheen had any practical knowledge of agricultural science, by which they could remedy the many evils that now and then beset the trees, plants, &c. [illegible] ignorant even of the proper use of the several [illegible] to agriculture

adapted for the cultivation of most of the products of the earth, but oppressive taxation, illegal exactions of all those who possess any authority over him, to say nothing of the usurer, from whose clutches he is seldom free, combine to prevent the native farmer from reaping anything beyond a miserable pittance from his toil. Add to this bad harvests, and the lot of the Syrian "fellah" is indeed not to be envied.

ANIMAL RAW PRODUCTS.

A vast area of the Syrian territory is used for grazing purposes by Bedouins (nomadic tribes), who live from the products of their numerous herds. Trade in cattle and animal products is therefore quite important. Then, too, the export of cattle, principally to Egypt, is worth noticing.

Hides are tanned in Beirut and vicinity, as well as in Damascus and in the Lebanon. In other parts of Syria the calf is not slaughtered, but used as a draft animal. The market price of fresh hides is from 28 to 35 cents per oke ($2\frac{4}{5}$ pounds). Goat and kid skins are worth from 12 to 60 cents, according to size and quality. Kid, lamb, sheep, and goat skins are brought from Hama, Homs, Damascus, and the Hauran, to Beirut; they are partly dried in the air, or salted; in the latter case they are from 40 to 60 cents cheaper per dozen. The majority of the hides coming into Beirut and all of those that are tanned here are shipped to France; they are generally put up in bundles of 20 to 25 each.

Wool in Syria forms, after silk, one of the most important articles of export. Immense flocks of sheep are raised by the Bedouin and Curd tribes along the eastern borders of the vilayet of Syria and Palestine, the large pasturage grounds of which offer peculiar advantages. The total wool clip in Syria is estimated at about 8,500,000 pounds, the greater part of which (fully three-fourths) goes to the United States, Italy and France taking the rest. It is of an inferior quality, but graded here "superior" and "ordinary." The former is sold at Aleppo, Hama, and Homs, where the pastures are most favorable to the flocks. The Damascus wool is of the ordinary quality, although in point of fact the difference between this and what is inappropriately termed "superior" is very slight. The principal Syrian wool markets are Aleppo, Damascus, Homs, Hama, and Tripoli. The product of the innumerable flocks grazing in the southern part of the Hauran and the regions adjoining the Jordan is transported to Acca, from whence it is exported to the United States. Beirut, Tripoli, and Alexandretta are the other ports of exportation. Wool exported to the United States is almost entirely, if not wholly, sent in an unwashed state, in order that it may enter under the category subject to duty of only $2\frac{1}{2}$ cents per pound. The sheep are shorn in the beginning of May, and soon after the clip the wool is brought in sacks to the principal markets to be sold, mainly to dealers that had previously contracted for it at certain fixed prices, from which, however, they usually claim a reduction of from 2 to 3 per cent., according to its cleanness. The price of unwashed wool during the early part of spring rose from 10 to 20 per cent.; but has since then lost some of its advance again, and is now quoted at $42 to $46 per kantar of 570 pounds, while washed wool commands from $57 to $86 per kantar, the difference being wholly due to quality and the degree of its cleanness. Women can be engaged at from 8 or 10 cents per day to free the wool from all foreign matter. The

MANUFACTURES.

Silk stuffs.—In Syria weaving of silk is as old as the cultivation of the raw article itself. The brilliant period, however, which this industry once so justly enjoyed in both Europe, Asia, and Africa is long since gone and past. The silk weavers of the present day work principally for domestic consumption, although the late improvements in both design and finish have again attracted the attention of Europe, and even the United States, towards the ancient home of silk culture; and Egypt and other provinces of the Turkish Empire are still large importers of this industry.

Some of the Damascus weavers have lately imitated and introduced into their silk and cotton stuffs the odd designs on the Persian carpets, and these patterns, it appears, have become very popular. The art of weaving gold and silver threads in the native silk stuffs has reached a high degree of perfection, notwithstanding that all the work is done on hand looms of a most remote period.

But the native manufacturers of silk, cotton, and woolen stuffs have much to contend with from foreign competition, which makes itself severely felt; and markets that were formerly controlled by Syrians are now disputed by European manufacturers, who, with their skilled artisans and with the aid of improved machinery, find competition with the older methods comparatively easy.

The greatest specialty in the native silk stuffs, and in which Syria undoubtedly excels, is that in which cotton forms the warp and in which the greater or lesser quantity of silk in the weft determines the quality. Cotton and woolen stuffs are also manufactured from goats' and camels' hair, worked with silk and wool.

Most of the native stuffs are in striped patterns; and of the innumerable articles manufactured in Beirut, Damascus, Aleppo, Zuke, Deir-el-Kamar, Homs, Hama, &c., the following will tend to illustrate the extent of this industry:

Kaffiehs are all silk and half-silk stuffs, often with gold or silver threads woven in, and are used as head-dresses in summer and worn around the neck in the winter. They cost from $1 to $4, and over. Beirut, Damascus, Aleppo, Homs, and Hama manufacture them largely. They are also made wholly of cotton.

Belts are made of all silk, with gold and silver threads, silk and cotton, and cotton only, in striped and square patterns, and are largely exported to Egypt, Anatolia, Greece, and Constantinople. Beirut, Damascus, Aleppo, and Deir-el-Kamar are some of the places where they are made.

Abayas (or Syrian cloaks) are extensively manufactured in Damascus, Beirut, and Aleppo, in all silk, silk and cotton mixed, silk warp and silk and gold or silver woof. They vary in price from $2 to $50 apiece, and are made almost wholly for domestic consumption, and rarely go abroad except when taken by tourists.

Tobacco pouches are made in Zuke (Mount Lebanon), of all silk, silk and cotton. They cost from 20 cents to $1.50, ac-

[illegible] but by far the greater

Sharpa scarfs are almost wholly exported, and made of all silk and gold threads, and silk and cotton, and cotton only. Cost $1.50 to $10.

Curtains in very handsome designs are woven in silk, silk and cotton mixed, all cotton, and all wool. They are made in many colors, red, blue, maroon, &c., and all have either gold or silver threads running through them (forming part of the woof), with a decidedly pretty effect. They cost from $4 a pair upwards.

Surrati or *Alâja*, all silk and cotton and silk stuffs for dress goods for both ladies and gentlemen. These stuffs cost from 30 cents to $1.30 a yard, and are often made after Indian patterns. They are in stripes of various colors, red, white, green, black, and blue, and are largely manufactured in Beirut, Damascus, Aleppo, Homs, and Hama. They are universally used throughout the Ottoman Empire, including Egypt, and have found some favor in Europe.

Kutni.—Silk stuffs for upholstery, of cotton and silk mixed, are made in Beirut, Damascus, and Aleppo in a large variety of patterns, some of which are very pretty and tasty. They are being exported to Europe, and indirectly to the United States, and are destined to become very popular in all countries. The price per yard ranges from about 50 cents to $1.25. There can be no doubt that if these stuffs were better known in the United States a ready and remunerative trade could soon be developed in them; for with beauty and cheapness they combine the rare quality of being durable, merits of which our merchants are usually not slow to avail themselves, and the fact that the tradesmen of Europe have only so far fully recognized these advantages is wholly attributable to the geographical positions of the two countries and to their greater familiarity with the Syrian industries. Samples and a price list of the many different patterns and qualities of these stuffs could easily be obtained and forwarded to our markets, and the manufacturers here are not only ready and willing, but most desirous to introduce these specialties into the United States, a country to which they are eagerly looking for more reciprocal trade relations.

Carpets are still manufactured in the northern parts of Syria, notably Karamania, exclusively by women. They are wholly made by hand, and generally small in size, due to the small rooms in which they are made. The predominating colors are red and black combined. In point of beauty and design, distribution of colors, and durability, they are inferior to those made in Anatolia and Persia. They cost from $4 to $18, according to size and quality.

Felt.—There are at Damascus and Zahleh a few felt factories, the material of which is a mixture of old cotton and camels' hair. It is mainly used for upholstering saddles and for packing valuable goods.

A small boat propelled by steam (the very first one ever built in this part of Turkey) was completed in May last, in the construction of which some of the Turkish seamen at this port assisted, and this achievement was considered a marvel of progress by the natives here.

Of the other industries of Syria, such as the paper-mill of Beirut, the manufacture of cotton yarns in Damascus, and of an inferior quality of glass made in the interior, little worthy of general interest could be said, and the gold and silver filigree, and mother-of-pearl work, inlaid tables, chased copper and brass ware, and many other articles of [illegible] ance are of no real

small establishments for the manufacture of toilet soap exist also in Beirut, Damascus, Tripoli, &c.

MINES.

The mining interests of the country are totally neglected. No exploration is being made of the iron, coal, lead, copper, or silver mines existing in the land. The bitumen mines in the Hasbeya district, which proved such a source of wealth to many Syrians during the last ten or fifteen years, have been abandoned, the contract with the Turkish Government having expired and the immediate supply being apparently exhausted. Only 110,000 pounds of bitumen were produced by a mine situated in the Bekaâ plain and exported to England, but none went to the United States during the year ending June 30, 1886, while in the previous year 226,187 pounds of mineral pitch, valued at $6,046, were declared here for export to America.

Chromium.—A mine in the Latakia district producing chrome or chromium has recently been opened up, of which small quantities have been shipped, as an experimental venture, to both England and the United States; its cost is from $15 to $20 per ton. Aside from this mine, it is also met with in the districts adjoining—Antioch, Suedieh, Alexandretta, and El-Baseat, on the Syrian coast.

Scientifically, chromium (chrome) is so called from the many colored compounds it produces; it was first discovered in 1797 by a Mr. Vanquelin, and occurs naturally as the chromate of lead and the chromate of iron. Its principal compound is bichromate of potash, obtained by beating chrome iron ore in powder with one-fourth of its weight of niter and then digesting in water, which dissolves out the chromate of potash, a yellow salt, and when this is acted upon by sulphuric acid, it is converted into bichromate of potash, readily crystallizes in orange-red crystals, which is soluble in water, and is largely used by the dyer and calico printer.

If this salt be added to a solution of lead, an abundant yellow precipitate occurs of chromate of lead, or chrome yellow, which is used largely by the painter as a yellow pigment.

A sesquioxide of chromium, chrome green, possessing a bright green color, is rendered useful in enamel painting, and, being innocuous, it is also introduced into paper hangings instead of the highly dangerous arsenical green pigment, and the bichromate of potash is employed in conjunction with the sulphuric acid as an agent in bleaching palm oil and other oils and fat. Chromium is also used to give a fine, dark green color to the enamel of porcelain, to glass, &c.; and this hard, brittle metal of a grayish deep color, so difficult of fusion, is therefore well worthy of being brought to the notice of those of our industrial establishments in which its manifold properties might be practically utilized.

FISHERIES.

[illegible] sole are the principal kinds of [illegible] throughout

fined only to native fishermen, for many Greeks come over from Kalimno, Stanchio, Rhodes, and Samos, in their little crafts, to share this traffic with the Syrians.

The fishing boats are generally from 18 to 20 feet long and have 4 or 5 people to man them. The catch commences in June and extends to October, this season being the most suitable owing to the calmness of the sea. The boats remain out to sea only from sunrise to sunset and the divers are mostly young and middle-aged men; old men are less adapted for this work, which is very hazardous and requires much strength. The time the diver generally remains at the bottom of the sea is from sixty to eighty seconds, unlike the Australian pearl-shell fishers, who often remain under water for hours at a time. This is in a great measure due to the difference in their respective outfits, for the native Syrian diver has simply an open net around his otherwise wholly unprotected body and uses no instrument of any kind in collecting his sponges; he cannot be induced, like the Greeks, to adopt the dress of these, called "skafander," although its practicability must be constantly apparent to him. They are a superstitious lot and cannot or will not overcome the belief that this diver's outfit is conducive to lameness. It is not often that accidents take place during sponge fishing. The depth to which Syrian divers descend is from 25 to 175 feet; below these depths no good sponges are said to be found. Three kinds of sponges are known here; prime, seconds, and the red ones taken near Batroon. The latter are by far the best. They have to be cleaned and freed from sand and then pressed. The best qualities are exported from Beirut to Paris direct, the others go almost exclusively to Trieste, while the Greeks send their share of the catch to different markets in Europe. The average annual catch is estimated at about $150,000 in value. The local authorities exact a tax of 10 per cent. from those engaged in this risky business.

FORESTS.

As no forests exist in this part of the Turkish Empire, most of the wood necessary for building purposes is imported from Karamania and the Danubian Principalities. No attention is paid here to either the preservation of old trees or the planting of new ones. Thousands of fir, oak, pine, and poplar trees fall annually under the ax of the woodman. It is apprehended that, unless the Turkish authorities will take prompt and stringent measures to prohibit this ruthless destruction of the groves and small woods which crown the summits of the Syrian hills and mountains, no wood trees worthy the name will be found before long in any part of this country, which could not fail to exercise its influence over temperature and climate alike.

COMMERCE.

Commerce is and has for some time past been in a most depressed condition. Early in the fall of 1885 hopes were entertained by merchants and manufacturers that fairly good business might be expected with the beginning of the new year, when, most unfortunately to all trading classes, the question of annexing Eastern Roumelia to the Bulgarian Principality suddenly darkened the

The disturbed political condition in Europe, Turkey, and Egypt paralyzed all the mercantile movements of the country and apprehensions of invasions and hostilities on all sides created a restless spirit in the minds of every one and utterly destroyed all confidence, that element so essential in commercial intercourse. Capital was jealously guarded and hoarded, and ready money was firmly held at exceptionally high rates of interest.

SHIPPING.

No sailing vessel or steamer carrying the stars and stripes has entered this port since 1880. The flag of the United States of America, as an emblem of commerce and on an American merchant ship, is almost wholly unknown in this part of the world. Prior to 1860 American shippers had a fair share of the carrying trade of the Mediterranean, but during our war privateers and cruisers in the Straits of Gibraltar, sustained, supported, and encouraged by a power with which the United States was not at war, burned up and absolutely swept our mercantile marine from these waters. In those days thousands of American seamen had to leave our merchant service to form an extensive blockade; over a million tons of merchant shipping were withdrawn from commerce to maintain this blockade and transport vast armies in defense of our Union, and hundreds of thousands of tons of American shipping were compelled to cancel their registers and take refuge under foreign flags to escape destruction from privateers and cruisers. But the world at large, and particularly the people of the United States, are sufficiently well acquainted with the causes that led to the destruction of our merchant marine, and it is just as true as it is mortifying that little, if anything, has been done since by our people to regain the commercial prestige which was so unfairly taken from them.

Up to 1880 American sailing vessels bringing refined petroleum from the United States were still to be seen here occasionally; they were sometimes obliged to leave for home via some foreign port in ballast, but more often found such return freights as licorice root, rags, unwashed wool, hides and skins, cedar wood, olive oil, flax, hemp, linseed, sumac, madder, soap, sponges, sesame, gallnuts, oranges, lemons, apricots, almonds, toilet soap, and sundry Oriental goods. Now these things are all shipped in foreign bottoms, and the principal carrying trade is done by English, Austrian, French, and Russian steamers, and Italian, Greek, and Austrian sailing vessels. Egyptian, Ottoman, and Jerusalem sailing vessels confine themselves strictly to the local coast trade, as do also the Turkish steamers that touch here at irregular intervals.

A new line of Khedivieh (Egyptian) steamers are also making their regular entry twice a week in the Beirut waters; they confine their operations to Alexandria, Mersina, and the intermediate waters. On account of the cholera that broke out a few months ago in Brindisi, Venice, Trieste, Fiume, and other Italian and Austrian ports, all vessels coming from that direction were and are still subjected to five to

[illegible] at Beirut has not yet been

Navigation at the port of Beirut for the year ending June 30, 1886.

Flag.	Destination.	Entered.				Cleared.			
		Steamers.		Sailing vessels.		Steamers.		Sailing vessels.	
		No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
Russian....	Odessa to Alexandria	58	2,825	.....	.....	58	2,166	.....	.....
Austrian ..	Trieste to Constantinople	81	7,485	12	3,838	81	3,460	.....	.....
French	Marseilles to Constantinople	71	6,639	.....	.....	71	2,074	.....	.....
English....	Liverpool to Syrian coast	133	7,100	.....	.....	133	4,618	.....	.....
Italian....	Mediterranean	.....	.....	25	4,670	.....	.....	.....	.....
Greek	Mediterranean	.....	.....	25	2,330	.....	.....	.....	.....
Khedivieh.	Alexandria to Mersine	28	2,632	7	300	28	1,196	7	420
Ottoman...	Constantinople to Alexandria.	7	600	3,100	24,800	7	500	3,100	10,000
Jerusalem .	Jaffa to Syrian coast.....	.....	.....	40	600	.....	.....	40	400
		378	27,281	3,209	36,538	378	14,014	3,147	10,820

IMPORTS.

Notwithstanding that the import trade has not been very active during the past year, and the quantity of foreign goods brought into this market was considerably less than in former years, it has, nevertheless, been found impossible to maintain current prices, and competition in almost every article became very severe. Many of the wholesale and retail houses, although not overstocked, have been unable to pay for the goods bought by them on credit from the foreign commission merchants established here, who represent French, English, German, and Austrian wholesale houses and manufacturers. If these dealers were to be hard pressed for payment a general crisis throughout Syria would, no doubt, be the result.

Most of the foreign silk stuffs that are worn by the better classes of foreigners and natives in Syria are imported from Lyons, which still has a firm hold on this market. Coffee, glassware, packing paper, sugar, perfumery, and wines are also imported from France, and the leather market here is still largely controlled by French merchants. England supplies this country with yarns, bleached and printed calicoes, cotton and woolen goods, cutlery, canned fruits and meats, porcelain and crockery, iron, brass, and copper in sheets, &c. Thousands of pounds sterling are annually sent over to England for the importation of Manchester goods alone, which are now worn by almost all the inhabitants of this country. Austria is fast gaining a firm hold on the Syrian markets. In lamps alone her share of the trade is not inconsiderable, and earthenware, bent-wood and ordinary chairs, furniture and hardware, matches, iron bedsteads, mirrors, fezzes (red caps), flannels, stationery, bric-a-brac, and sundry other goods are imported in large quantities from Vienna via Trieste. The prices and styles of these goods being well adapted to the condition and wants of the masses of the people, have created for them a comparatively large and ready market. Germany too is making a supreme effort to open up a larger field here for her many industries, and is apparently quite successful. The best bronze ware, porcelain, and crystal goods are imported by German commission houses established here. Italy furnishes Syria with rice, and

volume of the last two items as compared with former years; but in petroleum the decline is very marked, the inferior but less expensive Russian oil having, for the present at least, almost wholly replaced the once famous American brands.

Value of goods imported from foreign countries into the port of Beirut during the fiscal year ending June 30, 1886.

[Compiled from various sources.]

Articles.	Whence imported.	Value.
Coffee	Yemen, England, India	$190,000
Rice	Italy, England, Egypt	400,000
Flour	Russia, France	25,000
Furniture	Austria, Germany, France, England	20,000
Iron	England, Switzerland, Belgium	550,000
Copper, brass, and steel	France, England, Austria, &c	350,000
Lead and shots	England, France, Austria	30,000
Leather	France, Russia	200,000
Sugar	England, France, Egypt	370,000
Tea	England, Russia	25,000
Wine and liquors	France, Austria, England	120,000
Timber	Danubian territory, Karamania	264,000
Silk goods	France	280,000
Cotton stuffs, including Manchester goods	England, France, Austria, and Germany	5,800,000
Woolen stuffs and cloth	England, France, Belgium, Switzerland	1,000,000
Tombac	Persia	38,000
Mats	Egypt	7,000
Caps	Austria, Germany	720,000
Cutlery	England, Austria, France	25,000
Nails, locks, hooks, &c	England, France, Austria	45,000
Candles	Austria, Germany, France	15,000
Lamps	Austria, Germany	50,000
Drugs and medicines	Europe and United States	250,000
Earthenware	Austria, England, France	115,000
Hardware	England, France, Austria, Germany	150,000
Glassware and crystals	England, France, Belgium, Switzerland, and Italy.	90,000
Indigo	England, France	800,000
Marble	Italy	3,000
Sewing-machines	Germany, Austria, United States	4,000
Petroleum	United States, Russia	312,000
Stationery	Austria, France, England	175,000
Boots and shoes	France, England, Russia	8,000
Canned provisions	England, France	40,000
Christophle ware	France	10,000
Books	Europe	8,000
Clothing	Austria, Germany	17,000
Paints	Austria, England, France, and Italy	36,000
Salt and spices	England, France, Turkey	172,000
Miscellaneous		1,486,000
Total		14,200,000

EXPORTS.

The volume of the export trade from this country was, as is usually the case, considerably smaller than that of the imports. Wheat, sesame, and other cereals were only exported in limited quantities. The unsettled condition of the silk market in Lyons for the first seven months depressed the price of Syrian raw silk, which fell to the unprecedentedly low figure of $9 per kilogram ($2\frac{1}{5}$ pounds), but towards the end of [illegible] movement made itself manifest, and prices gradnot sustained for more

a change. The exports to that country have consequently been quite limited. Even the Syrian tobacco, which used to find such a ready sale there and command good prices, seems to be gradually replaced by other markets, notably those of European Turkey. A slight falling off is observable in the wool exports, the total of which was $300,500 in 1885–'86, against $412,250 for 1884–'85; but there is every reason to believe that exports to the United States will greatly increase during the year. Besides unwashed wool, licorice root to the amount of $133,831.13 was shipped to the United States, a large increase over previous years. Iron ore, soap, and Oriental sundries did not vary materially from former years. Small quantities of scammony root, to the aggregate value of $613.17, have also been exported to the United States. Scammony is a species of the genus Convolvulus (*C. scammonia*), is a perennial, and grows wild in various parts of the Levant; the best, however, comes from Aleppo, and when pure contains about 82 per cent. of resin, the active ingredient of a most excellent and trustworthy cathartic. Few drugs are so uniformly adulterated as scammony, and the fact that it grows wild and in abundance, and can be obtained in its pure state in Aleppo, deserves to be better understood by our people in the United States.

On the whole, the export trade of Syria was far from being satisfactory as compared with the volume of imports.

Native goods exported to foreign countries during the fiscal year ending June 30, 1886.

Articles.	Whither exported.	Value.
Raw silk	France	$1,600,000
Wool	United States, France, and Italy	300,500
Tobacco	Egypt, England, and United States	500,000
Rags	England, Austria, and Italy	3,000
Soap	United States and Egypt	45,000
Lemons	Russia, Austria, and England	14,000
Oranges	do	7,000
Raisins	Egypt	60,000
Bitumen	United States and England	3,000
Bones	France, Italy, and England	6,000
Apricot paste	Egypt	6,000
Dried fruits	do	7,000
Oil	Egypt, France, and England	7,500
Licorice root	United States, Egypt, and France	150,000
Goat-skins and hides	France	2,000
Sheep's bowels	do	1,500
Apricot kernels and almonds	France and Austria	83,000
Oriental cotton and gold goods	France, Egypt, and England	25,000
Wood articles inlaid with mother-of-pearl	France, England, and Egypt	2,500
Silk goods	Turkey and Egypt	750,000
Cotton goods	Egypt, &c	150,000
Cereals	England, Austria, and Algiers	40,000
Sheep and oxen	Egypt	55,000
Engraved brass and antique objects	England and France	7,000
Divers goods		1,375,000
Total		5,200,000

CUSTOMS.

Affairs in the Bierut custom-house have by no means improved during the last year, and no change has taken place in the customs tariffs. All foreign goods entering this port are subject to a duty of 8 per cent.

Syrian market is still prohibited by virtue of special orders emanating from the Sublime Porte and transmitted through the custom-house department at Constantinople to the collector of customs at this port. All pork arriving here, no matter where from, is thrown into the sea by the customs officials, unless the same be accompanied by a certificate bearing the seal and signature of the Turkish consul at the European port of exportation, certifying to the fact that such pork is not American, but the product of the country within his consular jurisdiction.

PETROLEUM.

The unprecedented falling off in the petroleum trade between the United States and Syria becomes not only a matter of grave reflection, but calls for prompt and efficacious action on the part of those whose interest it is to regain, if not its former supremacy in this market, at least a fair share of its former volume, to which, by reason of its priority, it is entitled.

It cannot be said that American petroleum has had to cede its monopoly of this market in order to make room for a superior article, for that would be in direct contravention with truth, as evidenced by the many and loud complaints that are continually heard against its rival; causes of an entirely different nature combined, not to say conspired, to bring about the present situation, conspicuous among which must be mentioned a most determined effort to capture this market irrespective of immediate pecuniary results. To such an extent did this purpose to crowd American petroleum out of this market manifest itself that all the natural laws governing commercial methods were dispensed with and whole cargoes of the competitive oil were offered at an actual loss to the shippers, of which dealers here of course were not slow to avail themselves. This unfair competition utterly demoralized the market. Prices were subject to violent fluctuations, and by dint of forced sales rapidly fell from $1.32 per case of two tin cans to $1.04. Dealers in American petroleum still having stocks on hand were reluctantly compelled to yield, and to save themselves from further loss obliged to turn their entire attention to Russian petroleum to the utter neglect of the former.

Throughout all this period, which may be said to have begun in April, 1885, no efforts appear to have been made by our exporters to stem these inroads upon a market here where hundreds of thousands of barrels of that product, which stands first on the list of the manufactured exports of the United States, had for the past twenty years found ready purchasers, while the Russians were allowed to literally flood this market, and this notwithstanding that much dissatisfaction was expressed as to the unreliability in quality and defective manner of packing their oil.

The moment of its introduction into this market was most propitious, for the difficulties to be encountered were comparatively slight.

It was not necessary to explain the utility of refined petroleum, as before when so much superstition had alleged de-

What concerns us most now is whether this hold is to be a lasting one or transitory only. Should Russia in time be able to produce as well refined an article as the American petroleum is universally conceded to be, there can be but little doubt that it will be permanent, for, irrespective of the first cost of the crude oil, the relative geographical position of the two countries will give Russia a decided advantage over the United States in the important item of transportation, and this will always enable her to undersell us. For the present, unfair commercial practices, intrigues in high circles, and unfair regulations discriminate against us; but this should not impel our exporters to wholly surrender without some effort a market where there is still a limited demand at higher prices of that superior American product, refined petroleum, so favorably known throughout the length and breadth of this universe.

TRADE WITH THE UNITED STATES.

The United States do not participate to that extent in the world's trade with Syria to which, by reason of the excellence and superiority of her wares, the vast resources, liberality, probity, and commercial integrity of her merchants, she is entitled. The reasons for this are largely due to the great distance that separates the two countries, and the consequent unfamiliarity of the wants of Syria by our merchants on the one hand, and the vast and varied commercial means of the manufacturers and merchants of the United States on the other, while the absence of direct carrying facilities undoubtedly materially contributed to impede the development of a more active commercial intercourse. But these obstacles are by no means insuperable, and the growing commerce of Syria offers a wide field for American enterprise, which is now wholly monopolized by the manufacturers of the Old World. It may be urged that Syria's import trade, which is not inconsiderable, as a glance at the figures presented amply demonstrate, is in such safe hands that any attempt on our part to compete with the manufacturers of England, France, Germany, Austria, &c., would prove futile; but upon such a principle we would forever have to abandon every hope of a foreign outlet for our numerous surplus manufactured products, for the country where these nations have not already established trading stations or agencies is not yet discovered.

It may be conceded that our beginning would be fraught with what might appear insurmountable difficulties; but the American manufacturers and wholesale dealers, with their skilled labor, improved machinery, and unlimited facilities, and with a little display of the energy, persistency, and foresight that is so characteristic of them, should not hesitate to enter any market, no matter how strongly intrenched the manufacturers of the Old World may be therein, for once the utility and superiority of American goods are fully understood and recognized in Syria, it will not be found impossible to divert its trade into new channels, and the minor difficulties that now obstruct it will also in time, and with proper efforts on our part, gradually disappear. Letters of inquiry, accompanied by trade circulars from American merchants and manufacturers, reach this consulate from time to time and are always promptly answered; but while this is generally productive of some re-

many must at once commend themselves to the earnest attention of our people.

In 1881 a commercial society at Cologne chartered a steamer at Trieste and sent out a special mission, composed of engineers, merchants, and others, for the purpose of visiting all the principal ports of the East, and to report as to the best means of employing capital in industrial and commercial enterprises, and among the numerous recommendations of this commission was "the establishment of an agency, with a sample room, in each of the principal commercial centers in every country," under the experienced management of an able and energetic business man of pleasing address and familiar with several of the modern languages, a recommendation which proved a most important element in the success of such enterprises.

This agent is liberally compensated and represents a certain number of manufacturers and merchants who have formed themselves into so-called "trade associations" (already referred to under the head of Agriculture), and who participate in and share pro rata the necessary expense of maintaining the agency, which, under such conditions, is comparatively small in proportion to the actual results ultimately achieved. This system of representing one or more societies of manufacturers and merchants involves but little capital to any one of them, while at the same time it materially diminishes the ordinary risks to which such individual ventures, intrusted to the ordinary traveling salesmen, who neither knows the language, the people, nor their wants, are subject, and vastly increases the chances of success.

In Syria the principal agency should be in Beirut, with branches at such important distributive points as Damascus, Aleppo, Alexandretta, Mersina, Homs, Hama, and Haifa, or Acca.

A full line of samples is furnished to the agent, who carefully studies the taste of the people and promptly reports their peculiarities and predilections to the different houses he represents. Reciprocally the manufacturers, if they expect to cope successfully with the market, must respond to the suggestion of the agent; for perfect as our manufacturers might consider their products for home consumption, they might not suit the peculiarities of the new market, which, should it give a marked promise of sufficient inducement, ought not deter them from adapting themselves to the new requirements, even if that should necessitate a deviation from their present advanced styles; but it is scarcely necessary to remind them of this, for it is a well-known fact that whatever Americans find necessary to do, they do most willingly and surprisingly well.

Another and rather novel way of familiarizing new markets with the products of their country was recently inaugurated by one of these trade associations. The German steamer Gottorp, of about 400 tons gross measurement, was chartered by the *Central-Verein der deutschen Export-Bank, Berlin*, a syndicate composed of merchants and manufacturers representing various industries, whose miscellaneous and [illegible] space of this little steamer and trans- [illegible] which started on

a full and comprehensive representation of any of them, greatly detracting from the avowed object of the enterprise and serious impairing its usefulness. Such an undertaking, carried out on broad and liberal principles, may not at all be one without its ultimate advantages to its promoters; but in this instance it lacked greatly in judgment and comprehensiveness in its practical execution.

In this country where agricultural interests predominate, the credit system is a necessity. The importers and wholesale dealers in the principal trade centers supply the smaller dealers of the interior distributive points, who are mostly natives, and they in turn sell to the consumer.

The wholesale trade in Beirut is to a very great extent in the hands of foreigners—English, German, Austrian, French, Swiss, Greek, and others—many of whom have become very wealthy and all of whom enjoy a good commercial reputation, possessing ample facilities for extending their trade relations. They would most willingly entertain proposals from our merchants and manufacturers, with whose superior mercantile advantages they are not unacquainted. But the initiative must come from us. They will not order or purchase goods without seeing them, and it is needless to expect a merchant in the far East to send for goods from the United States and pay for them before they are placed before him. A thorough mutual understanding must first be had, and this can best be reached through the medium suggested in the preceding pages.

Of the many American articles that might, with well-directed efforts, in time find a profitable market here may be mentioned the following:

Agricultural implements (already noticed under the head of Agriculture) of various kinds, notably the garden plow, which turns a furrow of 8 or 9 inches, and is light, the beam to be very light and long and slightly turned upwards, so that the end can be fastened with a clevis to the yoke of a pair of bullocks. Although by far the greater part of all the agriculturists in Syria belong to the class whose plow consists of a log of wood, the point of which is pointed and shod with iron, and to which a pair of bullocks or donkeys is attached, there are also some large tracts under cultivation where the use of our American implements of simple and strong but light construction could advantageously be introduced.

Butter and *cheese* from the United States come mostly through French and English houses.

Canned goods, fruits, vegetables, preserves, &c., would find a limited market here.

Canned provisions, corned beef, tongues, &c., of approved marks and quality only could be readily marketed here, as it is in Anatolia and other parts within this Empire.

Carpenters' tools of every description.

Chromos would surely find a market here among the Christian population.

Clocks.—The cheap but superior American clocks ought to find a large and ready market; they are already known here and in other parts of the Turkish Empire.

Cotton goods, drillings, sheetings, jeans, unbleached cotton cl[illegible]

able reception here, and their sale would be almost unlimited; great care should be exercised in packing to guard against damage; £900,000 sterling worth was imported from Manchester alone in 1885.

Flour, in limited quantities, is imported from Russia and France, but our superior milling facilities should not make competition with those countries impossible.

Furniture comes mostly from Austria and Germany, but it is most difficult to find an entire outfit here, and some enterprising American manufacturer placing a large stock here on sale would be amply rewarded for his venture.

Hardware, and all the tools and articles ordinarily classed with hardware. Those in use here are exceedingly crude in form and poor in quality, but the natives wield them with astonishing dexterity.

Iron bedsteads, to the almost utter exclusion of wooden ones, come from England, Germany, and Austria, and represent a very large volume in Syria's import trade.

Jewelry, plated, of the cheaper order, in which the United States undoubtedly excel, could be marketed here in sufficient quantities to compensate the enterprising manufacturer for his venture.

Lamps.—Already noticed under Imports.

Leather comes mostly from abroad, and the American tanners might find it to their advantage to look into the Syrian market for an outlet.

Locks.—This is an article much needed in all Eastern countries; our superior and exclusively American inventions, such as Yales, &c., should have no difficulty in competing with England, France, Austria, and Germany.

Mechanics' tools of every description are much needed here and would surely find a responsive market.

Patent medicines are largely sold in other countries on the Mediterranean, and would surely find a ready and profitable market here if prices could be reduced to conform to the condition of the people. Some of the better-known ones are already represented here and are favorably received by the people.

Pumps.—These have already been introduced in Anatolia and other ports within the Turkish Empire and would undoubtedly be received with favor here.

Rice comes mainly from Italy, but Egypt and England also contribute a fair share towards the enormous consumption of this article in Syria.

Sewing-machines.—Noticed among the imports. Their sale is limited, but could be greatly increased with energy and persistency.

Silver-plated ware could be marketed in considerable quantities in Beirut alone, for there is much wealth and opulence here, and the average ware usually seen in the houses of the "first families" is not worthy of the above appellation.

Stoves suitable for petroleum, if neat and not too expensive, would find a ready sale here; other kinds are useless, for houses have no chimneys here.

[illegible] cubed sugar, by reason of its superiority and [illegible] and crushed sugar

imported from Karamania and Egypt. Every furniture dealer and manufacturer speaks of mahogany, but not one of them can produce one single piece of it.

Yankee notions.—Many articles known under this name would find a ready sale in Syria; they have already a good reputation in Anatolia and elsewhere.

The uniform import duty on all these articles is 8 per cent. ad valorem.

The question of packing is also one that should not be lost sight of, and in this, also, the older and more experienced commercial nations of Europe might be aptly cited, as some of them, notably the French, have arrived at perfection in this not unimportant part of the business. Regular packers are employed in the large establishments, who have become thorough experts in their trade. A close-grained and tough wood, that will not easily split, and is only about one-half the usual thickness of the average American pine box, is generally used, materially lessening its weight. Round, wrought-iron wire nails are used in preference to the flat, cast-iron American nail, which can be much more readily drawn out of the wood.

Goods should be packed in tin cases hermetically sealed and then placed in the wooden box, which must, as an additional precaution, be banded with iron straps.

The rates of insurance on merchandise so packed are appreciably lower than when these safeguards have been omitted.

As regards the subject of transportation, it is not a very difficult or serious one: there is a regular and direct line of English steamers plying between Liverpool and Syrian ports, and freight rates are very low indeed; and how depressed carrying rates are between the United States and Liverpool, owing to excessive competition, our exporters need not be told by this consulate.

The following shows the limited movement of Syria's export and import trade with the United States, which it is hoped the foregoing pages may tend to stimulate into greater activity:

Exports to the United States during the year ending June 30, 1886.

Articles.	Amount.	Value.
	Pounds.	
Licorice root	6,115,000	$133,831 13
Unwashed wool	549,477	42,928 52
Iron ore	501,000	4,844 59
Oriental goods	.....	335 98
Scammony root	1,110	613 17
Total	7,166,587	182,553 39

Imports from the United States during the year ending June 30, 1886.

Articles.	Quantity.	Value.
	Cases.	
Petroleum	60,896	$80,382
Sewing-machines	.....	400
Drugs		

GENERAL CONDITION OF THE COUNTRY.

For the last few years there has been a gradual improvement in the general condition of Syria. Education has become almost universal, through the benevolent agency of American missionary societies, whose noble efforts to elevate and enlighten the natives by their secular and religious teachings—in which they are so ably seconded by the numerous French and English missions and German benevolent establishments—have been so eminently successful, as evidenced by the ameliorated social, material, and intellectual condition of the present generation.

Not only those worthy institutions, our colleges, with their medical adjuncts, but hundreds of our mission schools, diffusing knowledge and inculcating moral principles into juvenile and adult alike, and representing hundreds of thousands of American capital, generously contributed by an ever-responsive people, cover the country from the Mediterranean to the Euphrates, from Palestine to the very confines of ancient Assyria, and are within the limits and protection of this consulate. It is, therefore, to be greatly regretted that an adverse spirit should lately have manifested itself against these laudable institutions and the good people conducting them, whose purity of purpose and the generous zeal which characterizes their daily labor should not only insure for them absolute immunity from harassment and opposition, but secure for them the hearty co-operation of the Government to the benefit of whose people their lives of denial and sacrifice are devoted.

The wholesome influence of these colleges and schools, and the continual contact with the European residents here, whose numbers are constantly increasing, have greatly changed the habits and customs of the native Syrians, both in their intercourse with the outside world and in their domestic relations among themselves.

Of the material improvements it is worthy of note that private residences and business structures are multiplying; that vast new tracts of land in the plains of Mesopotamia and elsewhere are being brought under cultivation; while the great obstacle to a more rapid material progress, the want of adequate intercommunication between the littoral and the interior, is receiving the earnest consideration of the authorities in the construction of good roads, some of which have already been completed, with others in progress and many more projected. A regular trunk line of railways is in contemplation, and is to unite Constantinople with the Persian Gulf, with a perfect net-work of feeders to connect all the seaboard cities with the interior. The first of these is already built; it runs from Mersina, on the Mediterranean, to Adana (in the interior), the capital of the vilayet (province) of the same name, and is intended to ultimately connect with the projected main line. It is 68½ kilometers in length, and built by an English company.

The population of Syria is constantly increasing, and is now roughly estimated at between 2,500,000 and 3,000,000; but in a Mohammedan country statistics as to the number of its inhabitants are never reliable, merely, if ever, the case.

the past

both cases were very great, popular demonstrations were strictly limited to illy-disguised manifestations of displeasure and irritation.

The gradual but general improvement in the country is also increasing its revenues, and to the customs duties and tithes tax, already adverted to, must also be added $72,597 collected as a military tax, and $350,787 as a sheep and miscellaneous tax, most welcome contributions to the greatly depleted Imperial exchequer.

Slowly but surely is this vilayet, with its varied and unrivaled climate and its vast possibilities, awakening from its lethargy of centuries to the consciousness that millions of treasures are hidden beneath the rich soil that await but the assiduous plowman to reward his labors with bountiful harvests.

ERHARD BISSINGER,
Consul.

UNITED STATES CONSULATE,
Beirut, June 30, 1886.

EGYPT.

CAIRO.

Report of Consul-General Cardwell.

GOVERNMENT.

Egypt is nominally a vice-royalty, under the suzerainty of the Sublime Porte, relations being regulated by the treaties of 1840 and 1841. In the latter year a special firman was granted, in which hereditary right to the Government of Egypt was fixed in the family of Mohammed Ali. In 1866 another firman extended the family succession from father to son, instead of, as is the usual Mohammedan custom, to the oldest member of the family. In 1867 another firman was issued, bestowing upon the ruler of Egypt the title of "Khedive" (king), derived from *khedewi*, a Persian word. By this grant the sovereign of Egypt gained all but the suzerainty dependence of Turkey; it removed him from among the wális, or governor-generals of provinces, with whom he had formerly ranked. Further firmans have confirmed and extended his privileges, until at last he is practically independent of the Porte, the only evidence of such vassalage being in the payment of an annual tribute to Turkey. This, as shown in the following budgetary tables, amounts to 678,397 Egyptian pounds,* equivalent to $3,391,985.

The Khedive is assisted in government by a privy council and ministers appointed by himself. The privy council consists of the ministers, the sheik-el-Islam, and other functionaries. The ministers are eight—those of finance, foreign affairs, public works, interior, commerce, war, marine, and public works and instruction. There is also an "assembly of notables," composed of village sheiks elected by the commune, which meets for a short time every year, but its power is extremely limited.

administration by a council, of which the principal members are the deputy governor (wekeel) and the native judge (kadi). Each province is divided into districts, presided over by nazirs; and every village in a district has its chief, known as sheik-el-beled. The cities of Cairo, Alexandria, Port Said, Suez, Ismailia, Damietta, and Rosettas maintain government entirely independent of provincial government. Territory outside of Egypt proper is governed according to varying regulations.

ARMY.

By the Turkish-Egyptian understanding of 1840–'41 the Egyptian army was limited to 18,000 men. At times, however, it has exceeded these figures. In theory every Egyptian is bound to serve, but conscription is not always enforced in justice. The Government, in all processes, knows no one but the sheik, and he produces the men of military age. In by no means a few instances the sheiks make improper returns, the result of private transactions with those left out of the conscription. Exemptions are purchased from the Government for £100 each, and the revenue from this source is £200,000 annually. The army appropriation, exclusive of the outlay for the army of occupation, was for 1886 £130,151. A police force is separately organized, embracing the gendarmerie, the expense of sustaining the two being £238,100. There is no reason in the separate organization of army and police. They are both distinctly military, and for more efficiency as well as for economy they should be combined under the same command.

The marine is unimportant now, while under Mohammed Ali the Egyptian navy was one of the most powerful afloat.

ADMINISTRATION OF JUSTICE.

To the present prime minister is Egypt indebted for an administration of justice. If for no other reason the name of Nubar Pasha should be revered by Egyptians, and his life be respected by all civilized people. Before he instituted the present courts of the country justice was mere chance. Official violence preceded his administration of justice; one-man power, taking life, property, all, was supreme. The muddy waters of the Nile closed over the victim of personal power and judgment. From Khedive to sheik there was no arbitrament between vindictiveness and weakness. Upon khedives and prime ministers, upon pashas and upon slaves personal vengeance was wreaked without fear. Nubar Pasha's court succeeded these conditions, substituted a criminal power, lifted Egypt out of semi-anarchy and despotism, inaugurated an era of justice towards the highest and lowest people of the realm, placed Egypt on an elevated governmental plane, and laid the foundation of a real nation upon the sacredness of human rights.

The courts of justice are composed of mixed and native tribunals. There is a mixed court of first instance at Cairo, and one at Alexandria. Each of the courts [illegible] of appeals at Alexandria. [illegible] of whom four are Euro- [illegible] five

without appeal to the mixed tribunal of last resort. The system of legal administration is based upon the "Code Napoleon." These courts were established in 1876, on trial for five years; and at the expiration of this term they were re-established for five years more.

There are also mixed correctional courts.

The native courts are built up upon a system of justice taken from the Koran, in which all the elements of both religious faith and observance, and of civil and criminal jurisprudence are embodied. The judges of the native tribunals, the kadis, possess a sort of religious character. Every province has its kadi, the chief of all being at Cairo, who is named by the chief of Moslem, the Sultan of Turkey.

EDUCATION.

Education made considerable progress in Egypt during the reign of Ismail Pasha, the present exiled ex-Khedive. Mohammed Ali established public schools, but they were neglected by his immediate successors. Ismail Pasha, however, endowed them and put them into good practical operation. He not only established Government schools, but he lent aid and encouragement to mission schools under the direction of Christian communities. This was notably the case in regard to the American mission schools in Egypt.

The Government schools are divided into primary, secondary, and special schools.

There are also military schools, and a university at Cairo which embraces a well-organized and most reputable school of medicine, having in attendance at this time about two hundred medical students.

The free native schools, in which the Koran and reading and writing are taught, are very numerous. One is attached to every "sebeel," or drinking fountain; and some of the mosques have schools attached to them, in which the Mohammedan religion and law are taught.

All the different Christian organizations maintain schools in all the important cities and towns, and there are American, English, French, German, and Italian schools in Cairo and Alexandria. The headquarters of the Egyptian schools are at Cairo, and the system of public education is under the direction of the ministry of public instruction.

Attached to the university at Cairo are, besides the school of medicine, a polytechnic school, a school of law, a normal and training school, a school of art and design, professorial schools, a school of pharmacy, and a special school for the tuition and training of midwives. Every year, too, the Government selects a certain number of promising young men, who are sent to Europe and educated there at public expense. It also maintains an observatory and a weather bureau with a corps of officials. There is also maintained at public expense a school infirmary.

The ministry of public instruction has the following allowances:

For—	1886.	1885.
Administrative bureau	£9,868	£8,422
Schools	53,146	67,219
Various services	5,478	9,048

cupation and dictation are doing in the cause of advancement in Egypt. Several schools were suspended in 1886 in consequence of the diversion of public funds to other purposes incident to the present condition of the country. The military budget for 1886 called for £188,625 more than was required in 1885. The increase was mainly due to further demands for the army of occupation.

AMERICAN SCHOOLS.

It would be improper to quit the subject of education in Egypt without special reference to the work of a noble band of American educators who began their good deeds in the Nile Valley thirty-one years ago. I refer to the educational and evangelistic labors of the United Presbyterian Church Mission in Egypt. Without giving an insight into the hard up-hill work of the first twenty years of the missions, I will simply present a comparison at the beginning and the ending of the last decade:

Items.	1885.	1886.
Number of schools	23	65
Number of teachers	78	126
Pupils in attendance	1,151	5,414
Tuition and other fees	$797	$11,653

The summary and comparison of educational work for 1885 and 1884 present the following figures:

Description.	1885.	1884.
Missionary schools	12	12
Congregational schools	54	47
Theological school	1	1

The missionary schools are at Assioot, Cairo, Mansourah, Boulak, Alexandria, and one or more other places. At Assioot there is a training college, which enjoys a very high reputation. A very large proportion of pupils are taught free of cost.

Of the pupils in the missionary schools the different religions are represented as follows:

Protestants	320
Copts	1,175
Moslems	571
Roman Catholics	86
Greeks	153
Jews	184
Others	25

Nationalities appear as follows, 1885:

	1,147
	94
	119

In them a huge work is being done by toiling, self-denying laborers in a grand cause.

In 1857 the first mission school in Egypt was established in Alexandria. In 1873 the first was opened in Cairo. In 1885 there were 2 schools in Alexandria, 9 in Cairo, 5 in Mansourah, and 4 in the Fayoom, the others being scattered all over Egypt as far south as Edfoo.

The educational work of these missions will make its impress on the future of Egypt. Very many who have been educated in the schools are now in the service of the Egyptian Government, giving great satisfaction. Many are directing their energies in the pursuits of the various trades and professions. The names of Dr. Lansing and his associates live in the hearts of many in Egypt. Their labors will widen and each year effect greater and greater good. Good people of all the world should substantially commend the noble men and women of these missions.

PUBLIC WORKS.

The distressed financial condition of Egypt is due in a very great measure to the prosecution of public works, in which it has undoubtedly been robbed of enormous sums of money. Too much was attempted in too short a time. The Suez Canal absorbed ten millions of pounds ($50,000,000); and then the shares owned by Egypt were obtained by the British Government for three and a half millions. When Ismail Pasha came to the Khedivial succession only 245 miles of railway had been built. In fifteen years he increased the mileage to over one thousand. He built extensive telegraph systems, made harbor improvements, and built light-houses, and opened great canals, all of which was proper enough as a means for developing the country, but the indebtedness created by all this improvement has been very onerous. Since Ismail abdicated in favor of his son, Tewfik Pasha, public works, because of the financial distress of the country, in consequence of internal disorder, and finally because of demands for sustaining an English army of occupation, have been pursued on a much more moderate scale. Public works are conducted under the direction of a ministry, as heretofore stated, with headquarters at Cairo. The budget shows expenditures as follows:

Public works administration.

Subjects of expenditure.	1886.	1885.
Official salaries and expenses:		
Chief department	£30, 963	£28, 171
Provisional service	42, 409	41, 711
Municipal service	33, 778	36, 122
General expenses	10, 190	10, 000
Total	117, 340	116, 004
New works:		
Provinces	65, 000	62, 000
Cities	34, 642	28, 000
Total	99, 642	90, 000
Repairs:		
Provinces	108, 000	116, 000
Cities	74, 158	111, 000
Total		

Public works administration—Continued.

Subjects of expenditure.	1886.	1885.
Miscellaneous:		
Museum and antiquities	£5,808	£5,700
Towage	12,000	10,500
Exploration for petroleum	4,280	.....
Theater	2,500	.....
Total	24,588	16,200
Grand total	464,623	513,400

"New works" in the above table comprise small canals, bridges and gates, sluices, conduits, culverts, and buildings. "Repairs" embrace defense against inundation, repairs on works of art, dredging and damming in the provinces, repairs on gas and water works and fixtures, on streets, buildings, and bridges in cities.

GOVERNMENT RECEIPTS AND EXPENSES.

Without particularization in detail of all the departments of Government, I simply subscribe a series of tables, copied in detail from the budgetary reports. They will afford a comprehensive insight into the character and purposes of government in Egypt.

Budget of receipts of 1886, *compared with those of* 1882, 1883, 1884, *and* 1885.

Heads.	1882.	1883.	1884.	1885.	1886.
Direct taxes:					
Land tax	£5,036,667	£5,065,211	£5,061,798	£4,819,704	£4,848,106
Other direct taxes	304,952	302,473	304,405	296,296	302,163
Total	5,341,619	5,367,684	5,366,203	5,116,000	5,150,269
Indirect taxes:					
Customs	711,600	715,100	731,390	785,400	909,400
Municipal taxes	271,960	273,190	305,460	317,500	339,730
Salt and niter	166,370	179,339	207,500	205,000	218,498
Fisheries	92,730	90,065	91,013	95,000	95,824
Taxes on shipping	94,985	95,333	95,562	60,000	67,901
Stamp and registration	83,468	81,811	62,824	80,000	53,319
Various taxes	83,110	84,454	89,080	86,007	82,240
Total	1,504,223	1,519,292	1,582,829	1,628,907	1,766,912
Revenues:					
Railroads	1,093,530	1,093,530	1,200,155	1,254,555	1,399,760
Telegraph	35,000	35,000	45,000	40,000	48,000
Port of Alexandria	65,015	65,015	65,845	70,000	95,000
Post-office	87,625	88,600	91,850	98,500	109,550
Khedivial postal packets	85,350	108,900	103,000	106,400	108,900
Light-houses	66,560	70,000	80,000	90,000	90,000
Ports (other than that of Alexandria)	4,410	4,350	4,450	4,800	3,990
Mints	18,510	12,963	7,200	5,080	6,703
Total	1,456,000	1,478,358	1,597,500	1,669,335	1,861,903
Receipts from administrative service:	285,019	287,004	338,306	348,598	353,428
[illegible]					76,452

Budget of expenses of 1886, *compared with those for* 1882, 1883, 1884, *and* 1885.

Heads.	1882.	1883.	1884.	1885.	1886.
Civil list, grants, Khedivial cabinet:					
Civil list of the Khedive	£100,000	£100,000	£90,000	£90,000	£90,000
Grants to the Khedive's relatives	215,000	215,000	207,500	208,100	208,100
Khedivial cabinet	59,725	62,839	61,705	60,000	60,000
Total	374,725	377,839	359,205	358,100	358,100
Public security:					
Ministry of war	427,282	204,321	227,022	130,975	130,151
Marine	64,899	40,528	.....	.....	.....
Gendarmerie and police	238,431	324,117	240,796	247,650	238,100
Prisons	18,197	22,011	26,550	22,000	26,300
Army occupation	.....	.....	.....	.....	195,000
Total	748,809	590,977	494,368	400,625	589,551
Expense of administration and collection:					
Council of ministers	9,292	9,709	6,712	6,712	5,310
Legislative council	5,768	5,768	8,457	8,000	8,000
Ministry of foreign affairs	13,162	11,999	11,026	12,026	11,755
Ministry of finances	220,103	197,030	178,329	186,569	198,994
Ministry of public instruction	89,464	99,549	99,977	84,689	68,492
Ministry of the interior	120,706	113,696	102,548	101,206	119,999
Ministry of justice	294,743	297,083	318,473	323,654	322,960
Ministry of public works	409,106	515,101	542,078	513,004	464,623
Various services of the departments	130,454	116,789	75,689	95,165	91,510
Service of administration and collection in provinces, districts, municipalities	320,042	339,171	333,174	331,274	339,184
Customs	63,579	62,809	64,541	67,981	83,014
City tolls	43,350	43,826	42,632	42,461	43,477
Salt and niter	70,040	72,551	69,865	69,545	64,663
Fisheries	15,746	13,601	9,508	11,864	11,574
Collection of taxes on shipping	4,645	4,580	4,135	3,047	2,961
Total	1,810,200	1,903,262	1,867,144	1,857,137	1,836,516
Collecting special revenues:					
Railroads	442,125	508,544	542,945	542,696	637,000
Telegraph	35,403	39,700	40,000	41,765	42,000
Port of Alexandria	35,737	39,300	39,428	30,939	29,000
Post-office	80,000	79,000	79,050	84,140	90,346
Khedevial postal packets	120,000	110,000	115,678	120,600	106,404
Light-houses	26,765	27,377	26,496	31,496	31,239
Ports (other than that of Alexandria)	3,076	3,000	11,129	11,129	11,561
Mint	6,681	5,560	2,613	2,413	2,413
Total	749,787	812,481	857,339	865,178	949,963
Soudan:					
District of Souakim	.....	.....	.....	.....	50,000
Portion of pensions	.....	.....	.....	.....	50,000
Eastern Soudan	.....	100,000	110,000	120,000	.....
Total	.....	100,000	110,000	120,000	100,000
Pensions and retainers for services	255,964	255,798	336,835	453,200	434,000
Tribute and public debt:					
Egyptian tribute	678,486	678,397	678,397	678,397	678,397
Debt consolidated and unconsolidated	3,795,997	3,773,164	3,753,499	4,204,432	4,286,219
Total	4,474,483	4,451,561	4,431,896	4,882,829	4,964,616
Unusual expenses	.....	.....	.....	682,833	.....
Reserve funds for unforeseen expenses	50,000	90,000	.....	.....	.....
Total	8,463,968	8,581,918	8,456,787	9,619,902	9,232,746

INTERIOR DEPARTMENT.

An insight into this department of the Egyptian Government may be of interest as showing public tendency in matters but lately taken in charge. Its efforts are directed towards the conservation of public health, and therefore sanitation is one of its features. The total outlay for the last two years has been, respectively, £101,206 and £120,518, distributed as follows:

Subject of expenditure.	1886.	1885.
Chief department	£27,718	£29,409
Chief bureau	8,233	5,612
Central storehouses	646	.....
Medical service in Cairo	4,563	4,400
Hospital service in Cairo	15,637	13,034
Medical service in Alexandria	2,595	2,919
Hospital of Alexandria	4,343	5,352
Medical service in provinces and districts	23,215	27,220
Sanitary inspection of provinces	.....	2,970
Veterinary service	2,218	.....
General furnishing	4,800	3,200
Indemnity	377	.....
Reserves	2,508	2,773
Chemical laboratory	1,332	.....
Watering and sweeping Cairo streets	18,064	.....
Egyptian archives	4,269	.....
Total	120,518	101,206

The sanitary service comprises the hospitals at Cairo and Alexandria; also the foreigners' and maternity wards.

The practice of medicine in Egypt is regulated under the sanitary bureau. No doctor is allowed to practice until he has been officially recognized, and this consists in laying before this bureau proofs of his qualification to practice his profession. If he be graduated from a foreign school of medicine, he must not only produce his diploma for inspection, but the bureau reserves to itself the right besides to pass upon the merits of the institution granting the diploma. The same rules of recognition apply to midwives. The right to practice is announced in the columns of the *Journal Officiel*, the organ of the Khedivial Government.

POSTAL SERVICE.

Formerly nearly all the European Governments, with a considerably quota of population in Egypt, maintained post-offices at Cairo and at Alexandria, but with one or two exceptions there is at present none of this foreign postal service in Egypt. There is no just cause for any such offices, for the Egyptian postal service is a good one, and mail matter is handled with most satisfactory dispatch under governmental direction. There are lines of fast steamers, carrying foreign mails be- [illegible] Port Said, and many of the more important [illegible]wards India, China,

TELEGRAPH.

There are two telegraph systems in Egypt, one belonging to the Egyptian Government, the other to a foreign company. The Egyptian system at one time extended over 4,000 miles, reaching into the Soudan, but under the present administration it is less, while the cost of administering the system is four times as much as it was when there was more service, presenting again the difference in cost of foreign and native official service. The wires under the old administration extended even beyond Khartoum, to stations on the White Nile, with branches to Kordofan and Darfoor, and to Kassala, whence they connected with the Red Sea line. The price of transmission on the Egyptian lines was, under the old administration, 5 piasters for ten words; under the new it is 10 piasters for ten words. At most of the stations messages may be sent in English, French, and Italian, while Arabic is in common use for all.

MONEY.

The only money of Egypt is coin—silver and gold; and the para is the multiple of all. A formulated table might be presented as follows: 40 paras make one piaster, 500 piasters make one purse—or one Egyptian pound (£E. 1).

Until very recently there were legally current in Egypt the coins of almost every nation of the globe. The great variety of coinage became a very great evil, and, with the exception of very small change, almost drove Egyptian silver coin out of circulation. Very properly, in consequence, the Government, during the last year, presented the country with an entirely new coinage of silver, which it forced into general use by placing a discount on all foreign silver coin, a great amount of which was of short weight, and spurious. Counterfeiters have had a rich field of operation here. They counterfeited the Egyptian silver coins of all denominations, and it really seemed as though half of the silver piasters in circulation were the outcrop of counterfeiting. The new coinage consists of 20-piasters, 10-piasters, 5-piasters, 2-piasters, and 1-piaster in silver, and of one-half, one-quarter, and one-eighth piasters in nickel, and of 2-paras in copper. All the new coinage is very beautiful, and the very strict measures adopted by the Government, it may be hoped, will prevent counterfeiting. The old coinage is almost wholly taken from circulation, the Government having adopted the plan of never paying it out when received for dues. The new coinage has now almost wholly driven out the old Egyptian coin, as well as the silver coins of foreign countries, and yet the work of placing the new coin in circulation began only about eight months ago.

Of Egyptian gold coinage there are 500-piaster pieces and 250-piaster pieces in very general use. English pounds and French napoleons are also largely in circulation.

Paper money is unknown.

WEIGHTS AND MEASURES.

The Government regulates weights and measures. They are:

8 mitkál make 1 okéca, or Arabic ounce

FOR GOLD, GUMS, ETC.

4 kumh (grains) make 1 keerát, or kharóobeh.
64 grains, or 16 keerát make 1 derhm (47½ to 49 grains English).
1½ derhm make 1 mìtkál (1 drachm to 72 grains English).
12 derhm make 1 okéea or ounce (571½ to 576 grains English).
12 okéea make 1 rotl or pound.
150 rotl make 1 kantár.

MEASURES OF LENGTH.

Fitr, or span, with forefinger and thumb.
Shibr, longest span, with little finger and thumb.
Kubdeh, human fist, with thumb erect.
1 drah beledee, or cubit = 22 to 22⅝ inches English.
1 drah Stamboolee, or pik = 26 to 26½ inches English.
1 drah Hindázee (for cloth) = about 25 inches English.
2 bah (braces) = 1 kassobeh or 11½ feet English.

LAND MEASURE.

22 kharoobeh, or kúbdeh, make 1 kassoobeh = 11 feet 4½ inches, to 11 feet 7½ inches English.
137/8 kassobeh = 1 keerát.
24 keerát = 1 feddan (about 5,082 square yards, or 1 1/20 English acre).

CORN OR GRAIN MEASURE IN LOWER EGYPT.

9 kuddah make 1 melweh.
4 kuddah make 1 roob.
2 roob make 1 kayleh.
4 roob make 1 waybeh.
24 roob make 1 ardeb.

CORN OR GRAIN MEASURE IN UPPER EGYPT.

4 roftow make 1 mid.
3 roob make 1 mid.
8 mid or 6 waybeh = 1 ardeb, or nearly 5 English bushels.

PUBLIC DEBT.

The public debt of Egypt is as follows:

	£. E.
General debt:	
Unified 4 per cent	55,990,440
Privileged 5 per cent	22,296,800
Guaranteed obligations, 3 per cent	9,301,700
Hypothecated debt:	
Domaines	7,436,080
Daïra, 4 per cent	8,659,500
Total	103,684,520

The annual interest payable upon the above, respectively, is:

	£. E.
Unified	2,239,617
	1,114,840
	315,000
	371,804
	846,380

The following tables, taken from the budget, treat of the consolidated debt; in them are the itemized features of receipts and expenses regarding annual treatment of the debt:

Budget of receipts for consolidated debt.

Heads.	Provinces affected.	Railroad, telegraph, Alex. port.	Customs.	Budget, 1886.	Budget, 1885.
Direct taxes	£. E. 2, 438, 879	.....	.....	£. E, 2, 438, 879	£2, 430, 735
To deduct:					
Decrease in taxes £260, 000					
Partial suppression of the corvée 100, 000					
	160, 000	.....	.....	160, 000	80, 000
	2, 278, 879	.....	.....	2, 278, 879	2, 350, 735
Indirect taxes	73, 766	.....	£909, 400	983, 166	861, 784
Receipts from the administrative service	42, 035	.....	.....	42, 035	47, 021
Revenues	.....	£1, 535, 350	.....	1, 535, 350	1, 356, 850
Rent and produce from Government property	27 677	.....	.....	27, 677	29, 815
Retained for pensions of officials	2 981	.....	.....	2, 981	11, 796
	2, 425, 338	1, 535, 350	909, 400	4, 870, 088	4, 658, 001
To add:					
New imposts	.....	.....	.....	20, 000	
				4, 890, 088	
To deduct:					
Irrecoverable claims	.....	.....	15, 000		
Seven per cent. of gross receipts of four provinces affected (article 9, law liquidation)	.....	.....	169, 774		
				184, 774	175, 409
Total	.....	.....	.....	4, 705, 314	4, 482, 592

Budget of expenses for consolidated debt.

Heads.		Budget, 1886.	Budget, 1885.
Expenses of administration and collection: Customs		£.E.83, 014	£. E. 67, 981
Collecting special revenues:			
Railroads	£. E. 630, 000	.....	535, 351
Telegraphs	42, 000	.....	41, 765
Port of Alexandria	29, 000		
		701, 000	30, 939
Tribute to the Porte and the public debt:			
Guaranteed debt	307, 125	.....	.....
Privileged debt	1, 086, 969	.....	1, 158, 263
Unified debt	2, 183, 652		
		3, 577, 746	2, 183, 662
		4, 361, 760	4, 017, 961
Exceeding receipts (deficit)		343, 554	464, 631
Total		4, 705, 314	4, 482, 592

The deficit is not correctly stated; and this objection is one that is applicable to almost all the governmental reports. They are incorrect either by virtue of a system of guessing or by intention. There was a reported surplus for 1885 of £900,000, when in reality it

£20,000 appears as transferred to public works, when the real transfer is £1,000,000. Much of this huge sum of money will be improperly absorbed, but a part of it will be used in improving the barrage; that much of which will be expended in a very proper cause. The small sum represented to have been expended in search after petroleum will cut no figure in the sum total chargeable to the investigation and search after petroleum.

It is believed, and on good ground, that the Government has already been bled on this score to the extent of nearly £70,000; and this expenditure goes on a mere hypothesis. Egyptian finances are poorly conducted. The reformation, consequent upon the new order of things in Egypt, is about as real as the advance of English troops into the Soudan.

PROSPECTING FOR PETROLEUM.

A great deal has been said about petroleum discovery on the Egyptian Red Sea coast. The Government had some shafts sunk there early last year, and quite a quantity of petroleum flowed from the earth. The oil was found at a depth of 150 feet, and the flow was exhausted in a very few days. It was then determined to make a geological survey of the region supposed to be charged with petroleum. With this object Mr. Mitchell, a citizen of the United States, was employed. He went to Gebel-el-Zeit and remained in the field about four months, and as a result he reports an extended field charged with petroleum. Dr. Tweddle, another citizen of the United States, has a contract with the Egyptian Government to direct and superintend investigation. He was allowed £30,000 with which to buy boring apparatus and other necessary material for prospecting, and for over three months he has had a large force at work at Gebel-el-Zeit, boring a number of holes into the earth, none of which, however, have reached a much greater depth than those sunk nearly a year ago by the Government. As yet, however, petroleum has not been struck in any of the holes, and I have grave misgivings, as I have before stated, that at less than a very great depth oil will never be tapped. Very large sums of money have been spent—sums far in excess of what was first proposed and agreed upon—and the prospecting progresses very slowly. The strings of the Egyptian purse have been generously loosened, and its contributions have been most lavishly expended, while prospecting has been slow indeed. Hoping Egypt may be rewarded, I at present take leave of this subject.

POPULATION.

The total population of all the countries claimed as embraced under Egyptian rule may be placed at 16,000,000. Of this number only abou. 6,500,000 belong to Egypt proper. It was considerably larger in ancient times, in the Memphite periods, as believed by many, holdthroughout the then known world. Surely traces of Egyptian Coming down to a much Amosis as

more placed on the highway towards greater prosperity, began to recover its lost population. The unwise rule of Abbas Pasha, from 1849 to 1854, retarded progress, but it was restored under Said Pasha, and has been maintained under Ismail as well as under Thewfik, who has been compelled, however, to subserve foreign aggression more than home development.

The population of Egypt is composed of motley elements—Bedouins; Egyptians proper, embracing Copts, and divided into the "fellaheen" (country population), the "pulad-el-Arab" (town people), and Bedaween (wandering tribes); Nubians, Abyssinians, Soudanese (pure negroes), Turks, Levantines, Jews, Armenians, and Europeans. The fellaheen amount to more than three-fourths of the entire population. This element represents the conquering followers of Ameer, but it has been so mixed with other elements as to have almost lost its identity. The same influence—amalgamation of races—has very nearly destroyed the old Egyptian types, and yet, especially in the rural districts, occasionally are seen to crop out those features which lend a peculiar charm to the chiseled records of a wondrous period and people.

The native populations are a vigorous, well-formed people, noted for gracefulness of carriage as well as for great endurance in labor. Their color ranges from light and tawny, in Northern Egypt, to the deep bronze of Upper Egypt.

The fellaheen are the most patient people of earth, kind in heart, industrious and intelligent, but years of never-ending toil, poorly recompensed, soon change youth into age bowed down with misery. Yet homes of poverty, and almost naked corpses of thousands borne coffinless to desolate graves, awake no sympathetic chords in the hearts of foreign money kings, who dictate through powerful Governments, combined against the weak, what shall be the annual tribute of distressed Egyptians.

The Bedouins are the wandering Arabs, who live in the deserts and in the Sinaitic peninsula. They are of both Asiatic and African origin, and may be properly regarded as descendants of the warrior tribes who founded the dominion of Islam.

The Copts are regarded as the true descendants of the ancient Egyptians, but they are by no means a pure race. They derive their name from Coptos, of Upper Egypt, now Kuft, the headquarters of the Christians till the Mohammedan conquest. The purest Copts are of small stature, like the ancient Egyptians, and many of them have the soft, almond eyes of the ancients. They are better educated than the rest of their countrymen, but on account of religion and inferiority in numbers are looked down upon by the Moslem Egyptians. They number 300,000 to 500,000, living largely in Cairo and in the Fayoom, while several towns and villages of Upper Egypt are almost wholly populated by them.

The Levantines are the Arabic-speaking Christians of Syrian origin. They are mainly engaged in commerce, and many of them are very wealthy. Armenians form an important community, being merchants and traders, while many of them hold important governmental positions. Nubar Pasha, the present prime minister of Egypt, is an Armenian. Jews and Europeans are very important and

The last census of population was taken in 1882. The one previous to this was taken in 1877, when the population of Egypt proper was enumerated as follows:

Lower Egypt	2,823,995
Central Egypt	653,119
Upper Egypt	1,471,398
	4,948,512
Cairo	327,462
Alexandria	165,752
Rosetta	16,243
Damietta	32,730
Port Said	3,854
El-Arich	2,506
Ismailia	1,897
Suez	11,327
Suakim	4,600
Massourah	2,740
	5,517,626
Total	6,806,381

The census of 1882 shows a total population of 6,806,381. I am satisfied it, as well as that of 1877, falls short of the real population at the time each enumeration was made. Census enumeration of any sort in Egypt is the result of nothing more or less than the declarations of the sheiks, and while these in reference to small communities may be accurate enough, in the large ones they are certainly very inaccurate. No one of observation doubts that the city of Cairo has a population of 500,000, and some think it is nearer 600,000. The census as it is, however, places it far below these figures.

Herewith submitted are the official figures regarding the enumeration of the population in 1882 of Egypt proper:

Egyptians.

iehs.	Natives, fixed.		Bedouins.						Total of Egyptians.			Foreigners.			Grand total.		
			Semi-sedentary.		Collected in tribes.		Total.										
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
:																	
.....	173, 374	179, 042	445	327	.....	.....	445	327	173, 819	179, 369	353, 188	11, 026	10, 624	21, 650	184, 845	189, 993	374, 838
ia.....	91, 432	89, 768	263	238	.....	.....	263	238	91, 697	90, 006	181, 703	25, 917	23, 776	49, 693	117, 614	113, 782	231, 396
.....	22, 696	20, 805	.....	1	.....	.....	.....	1	22, 696	20, 806	43, 502	78	36	114	22, 774	20, 842	43, 616
.....	10, 632	8, 635	.....	.....	.....	.....	.....	.....	10, 632	8, 635	19, 267	62	49	111	10, 694	8, 648	19, 378
.....	180, 212	183, 838	4, 054	3, 028	14, 889	11, 131	18, 943	14, 159	199, 155	197, 997	397, 152	1, 114	590	1, 704	200, 269	198, 587	398, 856
.....	214, 844	220, 536	337	216	14, 773	12, 145	15, 110	12, 361	229, 954	232, 897	462, 851	1, 298	506	1, 804	231, 252	233, 403	464, 655
.....	287, 432	290, 712	2, 333	2, 051	898	931	5, 231	2, 982	290, 663	293, 694	584, 357	1, 088	588	1, 676	291, 751	294, 282	586, 033
.....	450, 013	458, 028	893	686	8, 803	8, 518	9, 696	9, 204	459, 709	467, 232	926, 941	1, 737	810	2, 547	461, 446	468, 042	929, 488
h.....	125, 465	128, 733	497	215	8, 429	7, 455	8, 926	7, 670	134, 391	136, 403	270, 794	414	183	597	134, 805	136, 586	271, 391
.....	317, 619	324, 990	275	158	1, 046	1, 033	1, 321	1, 191	318, 940	326, 181	645, 121	703	189	892	319, 643	326, 370	646, 013
and Canal .	7, 854	6, 206	176	50	.....	.....	176	50	8, 030	6, 256	14, 286	3, 539	3, 471	7, 010	11, 569	9, 727	21, 296
.....	5, 275	4, 702	7	1	.....	.....	7	1	5, 282	4, 703	9, 985	693	497	1, 190	5, 975	5, 200	11, 175
.....	1, 334	1, 295	182	122	431	556	613	678	1, 947	1, 973	3, 920	2	1	3	1, 949	1, 974	3, 923
.....	1, 132	1, 058	142	98	.....	.....	142	98	1, 274	1, 156	2, 430	.....	.....	.....	1, 274	1, 156	2, 430
.....	274, 887	274, 889	42	2	6, 151	5, 711	6, 193	5, 713	281, 080	280, 602	561, 682	311	144	455	281, 391	280, 746	562, 137
.....	96, 013	97, 292	782	666	12, 674	11, 997	13, 456	12, 663	109, 469	109, 955	219, 424	111	38	149	109, 580	109, 993	219, 573
.....	100, 345	100, 622	77	58	13, 904	13, 289	13, 981	13, 347	114, 326	113, 969	228, 295	309	105	414	114, 635	114, 074	228, 709
.....	135, 906	138, 500	114	101	5, 121	3, 147	5, 235	3, 248	141, 141	141, 748	282, 889	148	46	194	141, 289	141, 794	283, 083
.....	146, 635	148, 020	60	19	10, 124	9, 621	10, 184	9, 640	156, 819	157, 660	314, 479	234	105	339	157, 053	157, 765	314, 818
.....	104, 036	117, 777	1, 232	1, 295	6, 313	7, 256	7, 545	8 551	111, 581	126, 328	237, 909	37	15	52	111, 618	126, 343	237, 961
.....	361, 369	254, 603	18	5	2, 653	2, 635	2, 671	2, 640	264, 040	257, 243	521, 283	102	28	130	264, 142	257, 271	521, 413
.....	194, 670	189, 149	27	18	12, 240	10, 592	12, 267	10, 610	206, 937	199, 259	406, 696	131	31	162	207, 068	199, 790	406, 858
ot	10, 638	10, 821	.....	.....	.....	.....	.....	.....	10, 638	10, 821	21, 459	.....	.....	.....	10, 638	10, 821	21, 459
om	3, 034	2, 848	.....	.....	.....	.....	.....	.....	3, 034	2, 848	5, 882	.....	.....	.....	3, 034	2, 848	5, 882
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	3, 216, 847	3, 252, 869	1, 958	9, 355	118, 449	106, 017	36, 407	115, 372	3, 347, 254	3, 368, 241	6, 715, 495	9, 054	41, 832	90, 886	3, 396, 308	3, 410, 073	6, 806, 381

AGRICULTURE.

That civilization begins and ends with the plow, even fluctuates with the use of the plow, might be adopted as a truism. Certainly, with the adoption of the plow civilization was inaugurated in Egypt, and according as its soil has been cultivated so has its prosperity as a nation fluctuated. The rise and fall of the Nile, and the consequent time to sow and to reap crops, was the origin of mathematical investigation, for which the ancient Egyptians became celebrated. Out of it arose the fixed year—first, twelve lunar months; then, twelve solar months of thirty days each, with five days added at the end of the last month to insure the return of the seasons at fixed periods. Even then error became apparent, and in the course of time the addition of one day to the calendar every four years was a necessity. The year was divided by the ancient Egyptians into three seasons of four months each: the "inundation," corresponding very nearly with the months of July, August, September, and October; the winter, with the months of November, December, January, and February; and the summer, with March, April, May, and June. Modern Egyptians still retain these seasons in their calendars, being known respectively as "*Ed Demeereh*," "*Es Shitawee*," and "*Es Seyfee.*" During the first, maize and millet are sown and harvested. During the second, are grown wheat, barley, clover, peas, beans, lentils, vetches, and a great variety of vegetables.

As soon as the inundation of the Nile subsides, and during inundation even, where the land is protected from overflow, planting begins. All the crops now sown, excepting wheat and barley, require four months for harvesting, the excepted requiring seven months. Cotton is planted during the early part of the Egyptian summer and is harvested during the latter part of the season of inundation and in winter. The production of cotton is confined almost entirely to the Delta, where the waters of flood Nile are held under control. Sugar-cane begins to grow early in the summer season, and is harvested in the winter. Rice and indigo are sown in the summer and are harvested in October, November, and December. Tobacco is grown in the summer. Great quantities of melons are grown in the summer, as are cucumbers, of a variety that should never be thrown to the hogs. Of fruits, besides the above, there are grown near the sea great quantities of figs, superb grapes of several varieties in Upper and Lower Egypt, apricots in great abundance, plums of superior quality, peaches in quantity but not very good, dates in great profusion, from the lakes of the south to the sea, for immense home consumption and large shipments to foreign markets. Of vegetables, about every variety known to temperate and to tropical climates are luxuriantly grown in this favored land; they are nearly all in season every month in the year, and it is proper to add, that in quality they are, as a general thing, not surpassed by similar products in any land. Both fruits and vegetables are sold in the markets at very reasonable prices. Oranges are abundant, excellent,

visions of the country are subdivided into districts, known as moodiriehs, besides townships or municipalities. The moodiriehs of Upper Egypt are Kosseir, Assioot, Beni-Sooef, Fayoom, Guizeh, Minia, Esneh, Guergeh, Keneh; of Lower Egypt they are Cairo, Alexandria, Damietta, Rosetta, Behera, Charkieh, Dakahlieh, Gharbieh, Kallioubieh, Menoufieh. Besides these there are the divisions of the Isthmus, composed of Port Said and Suez; of the East, composed of El-Arich; and of the Oases, composed of Oasis Assioot, Oasis Fayoom, and Oasis Siwa. The statistics in regard to products are old and necessarily imperfect, but guided by such as they are, I am able to gather the information that the moodiriehs of Gharbieh, and Dakahliah, of Lower Egypt, lead all others in the production of cereals. The largest production of vegetables and farinaceous plants is in the moodiriehs of Ghizeh and Menofieh. Maize (Indian corn) is produced in all the provinces, attaining the maximum, by area, in Assioot, and the minimum in Ghirgeh. The average product, per feddan (5,082 square yards), can only be guessed at; but in the best cultivated fields, because of improper treatment in growth and harvest, the yield is never over 20 bushels. The average, probably, is not more than half this. The grain product is cut short by the use of inferior seed and by the superabundance of plants, grown as much for forage as for grain. Rice proves a more profitable crop than maize. It is produced most largely in the northern provinces. Henna is produced in the moodiriehs of Kalioubieh, Sharkieh, and Esneh; but the crop is not large. Sesamum, an oleaginous plant, is cultivated in many of the moodiriehs; but the entire crop is also small. Indigo is not largely produced, and yet it has been demonstrated that profit from its production may be very great. The average income per feddan is put at about $55, and yet the most intelligent cultivation and treatment of this plant have yielded a gross return of $140 per feddan. Tobacco has not been very largely cultivated in Egypt, and yet the profit from its production in some of the provinces has been good. The average gross return, per feddan, may be placed at $36, while in the moodirieh of Esneh the maximum of yield has been as high as $60. The area of the crop of 1886 was about 15,000 feddans throughout entire Egypt. With improved seeds I think the value of this product might be greatly enhanced. Barley is a very important crop, and is mainly cultivated in the northern provinces; yet it is not as profitable a product as maize. Beans, which are generally cultivated, yield a crop annually about as valuable as barley—about $2,250,000 each. The value of the lucerne crop is annually about $15,000,000, while that of the wheat crop is about $13,000,000. The lucerne crop is consumed in Egypt in the feeding of live stock, while wheat is largely shipped for foreign consumption. The annual product of maize is about $5,000,000. Sugar-cane is cultivated throughout Egypt, but most largely in the province of Munieh. Next in the production of cane come Assioot and Esneh. This crop, owing to the advantages of irrigation and the fitness of the climate for its production, is very uniform. The gross return per feddan may be put at an average of $50. The Government quite controls the manufacture of sugar, and, it may be said, because of its low price at present its manufacture is at this time unattended with profit.

An idea of the movement in wheat and beans

Reported receipts and shipments at Minetel-Bassal from April 1 to December 18 in ardebs.

[About 5 English bushels make an ardeb.]

Articles.	1883–'84.	1884–'85.	1885–'86.	1886–'87.
Wheat:				
Receipts	694,790	458,490	181,490	204,370
Shipments	584,140	516,180	----------	----------
Beans:				
Receipts	832,980	973,180	879,590	562,680
Shipments	832,110	1,011,710	905,680	451,880

It may be proper to note that shipments for the present season are not completed.

The above figures suffice to give an idea of the importance of Egyptian agriculture in connection with foreign supply. The wheat and bean crops of 1886 have been fully up to the average.

COTTON.

The production of cotton in Egypt received an impetus from the war of sections in the United States. But little of the staple was produced prior to the time when the trade of ports in the cotton-growing States was cut off by blockade. Egyptians then began to bend their energies to supply, as far as lay in their power, some of the deficit from that quarter of the globe where cotton had been proclaimed "King." One dollar a pound was a great incentive, and the cultivation of cotton in the Nile Valley became general. Appreciation of our great family trouble is still manifested by Egyptians, when they often inquire with zealous interest if we will not have another war in America. Certainly these people were temporarily very greatly benefited by the American conflict, but I am generous enough to say they do not desire us to again engage in fratricidal strife; that they simply hope for more remunerative prices for their products.

Cotton planting is done in the early summer season (Egyptian calendar). The fields are first well saturated with water raised from the canals and ditches, and, after being dried off to a proper condition for plowing, the soil is well broken with the plow. Ridges are then formed, mostly with the hand-hoe, about 3 feet wide, horizontally across the fields. The seed are then carefully planted by hand along the same side of every ridge. Then more water is turned into the water-furrows to insure ready vegetation of the seeds, and in a few days the young plants are above ground, forming distinct horizontal rows of cotton plants far down on the same side of every ridge. The crop is not cultivated with the plow, but with the hand-hoe; and here the utility of planting on the side of the ridges comes into play, the process of cultivation being nothing more than a thinning of the plants to a proper [illegible] dragging the ridge in successive workings towards the plants. [illegible] the position of the ridges has [illegible] with the

climate, under the influence of much moisture, produces weed greatly to the exclusion of lint. The Egyptians grow their cotton plants too thickly, and, by pushing the growth with moisture, destroy fruitage, which, under more congenial conditions, would be more largely produced and preserved. The clean-seed varieties of cotton are altogether used, and once the staple was much better than now. New seeds are needed, and more intelligent cultivation, and though the preference here is for the clean-seed varieties, I believe the more prolific of those varieties usually cultivated in the cotton-producing States of America would pay far better than those now grown in Egypt. One drawback to the change would be that all the gins now in use in this country are manufactured exclusively for the clean-seed varieties.

Cotton statistics in Egypt are very much like statistics touching anything else here. They are guess-work, and when applied for, even in proper quarters, are next thing to an impossibility to obtain. Some months ago I applied through the ministry of foreign affairs for statistics on various subjects without any satisfactory returns. Then I applied to the director of customs, and my success in that quarter was far from satisfactory. Regarding cotton statistics, I am left almost wholly to my own individual exertions to procure points of interest necessary in a report like this. My application for statistics regarding cotton production made through the office of foreign affairs and a subsequent one made to the director of customs secured me nothing of value. Statistics are in their earliest infancy in Egypt, and a show of figures from here may, as a general thing, be set down as guess-work. Such figures have been sent from Egypt; but they are in reality not fully reliable. Monetary figures and reports are profuse enough. The Government issues great volumes of these, but I am not prepared to say they are not doctored in profuse doses. Such figures and reports are minute in regard to all receipts and expenditures of all departments of Government, of all systems in operation under direction of Government, but strangely wrought balances often appear. But, touching products of the country, agriculture, live stock, &c., figures are almost wholly guess-work. A beginning, however, has been made for 1886 in regard to cotton culture, and from it I am enabled to present what follows.

Lower Egypt, composed of the moodiriehs of Behireh, Charkieh, Dakahlieh, Gharhieh, Kalioubieh, and Menoufieh is the great cotton-producing region of the Nile country.

Agricultural statistics of Lower Egypt.

[$1\frac{1}{20}$ acres = 1 feddan.]

Moodiriehs.	Total area in cultivation.	Area in cotton.	Number employed.*
	Feddans.†	*Feddans.*	
Behereh	465, 610	110, 763	264, 297
Clarkieh	434, 362	133, 820	320, 444
Dakolieh	462, 366	157, 727	399, 555
Gharbieh	838, 980	275, 125	653, 800
Kalioubieh	187, 179	37, 226	178, 428
Menoufieh	351, 710	111, 453	465, 461

Agricultural statistics of Upper Egypt.

Provinces.	Total area in cultivation.	Area in cotton.*	Number employed.*
	Feddans.	*Feddans.*	
Beni-Soeuf	231, 610	9, 962	165, 426
Guizeh	181, 175	1, 317	182, 689
Fayoom	230, 110	35, 088	144, 834
Minnieh	397, 240	2, 134	229, 793
Assioot	419, 099	5	360, 068
Guerget	325, 914	25	353, 438
Keneh	280, 927	---- ----	295, 794
Esnet	150, 459	---- ----	185, 645
Total	2, 216, 537	----------	1, 917, 687

*2.24 per cent. of population only were engaged in cotton culture.

The cotton crop of 1886 will not far exceed 400,000 bales, while that of 1885 was 574,320 (United States standard). The crop will be wholly ready for market by the end of January.

The cotton crops of five years are as follows, in cantars (100 pounds):

1881–'82	2, 900, 000
1882–'83	2, 860, 000
1883–'84	2, 700, 000
1884–'85	3, 630, 000
1885–'86	2, 871, 600

About two-thirds of the shipments of cotton are to England; one-third to various European continental ports.

The maketable crop of cotton seed for a series of years is as follows, in ardebs (1 ardeb=nearly 5 bushels):

1881–'82	2, 045, 600
1882–'83	1, 662, 430
1883–'84	1, 918, 200
1884–'85	2, 536, 460
1885–'86	1, 973, 850

LAND TAXES.

In one of the accompanying tables it will be seen how enormous is the land tax of Egypt. The area of Egypt, not inclusive of desert, is about 5,750,000 feddans. Of cultivated lands there are 4,956,748, with an agricultural population of 4,199,672. The land not in cultivation is absolutely non-productive, lacking either irrigation or being sea-coast marsh. Therefore agriculture pays the land taxes, which range from about $4 to $8 per feddan. No wonder, therefore, may be expressed why the people engaged in agriculture remain very poor. About three-fourths of the cultivated lands of Egypt are known as "Kharaji" lands, [illegible]mainder as "Ouchouri" lands. The latter are certain privileged [illegible]tion than the other lands, the rate on [illegible]i" lands arise

upon the other lands. The "Kharaji" lands pay the heavy taxes above named, and are the lands subject to easy irrigation, which is provided by the Government. It may therefore be said in extenuation of this enormous taxation, that the Government is subjected to enormous expense in making lands productive of crops. They are taxed in accordance with the facilities provided by the Government for easy or difficult irrigation. In the Delta, rotation in crops presents relief from heavy taxation; but in Upper Egypt the tax is onerous in the extreme.

A serious feature of the land tax is, that taxes have been and are still unfairly distributed, the areas as recorded on the registers being inaccurate. They were first surveyed under Mohammed Ali, in 1813, and the surveyors engaged in the work were often paid by the rich to make false returns, by which they were relieved from the proper proportion of taxation. Since then, too, areas have been washed away by Nile floods; lands have been taken for canals, dikes, and railways; and taxation has not been revised in a manner to relieve many from paying taxes upon what they really do not own, from paying upon estate which has absolutely been taken for public purposes. The cadaster is the land-survey department of the Egyptian Government. Under late surveys, made through cadastral direction, this evil has been partially corrected, and the work will probably go on until in a great measure substantial justice will be exercised. Under this revision it is recorded that alone in the two districts of Kafr-el-Zayet and Saman, out of a total of 914 tenanters of the soil, 185 holders paid no taxes, while 699 paid taxes on land in excess of what they owned.

A more evil feature of land taxation probably than what is above referred to is unequal valuation of the holdings which are classified for assessment. In Europe and in America lands are valued according to quality, convenience to market, and adaptability to uses. In Egypt advantages of irrigration should play a most important part in valuation, but in reality none of all the conditions enumerated have been properly considered. The result has been the exercise of great injustice and the creation of most proper and wide-spread dissatisfaction among the agricultural classes. Overcropping has very materially impaired the fertility of soils, and this, added to scarcity of water-supply in many sections, has very generally reduced the values of lands, and changes in assessments from those fixed in former years have not been made to keep pace with alteration in values. (See table of budgetary receipts.)

The cadastral survey was begun in 1879 and it has slowly progressed since then, while correction of the village land registers under its operation has been quite as slow. Still, the work moves, and in Egypt this may be counted as well enough. In the course of time evils will be corrected, but the period of execution may be so protracted as to allow equally as great ones to grow up under proposed correction.

AGRICULTURAL TAXES.

All exported products of agriculture pay an ad valorem tax of 8 per cent., the fixed rate of duty on all exports as well as imports. Besides this contribution from agriculture for th

compelled to present that of 1883, which, however, indicate very nearly what the present tax is. The showing was as follows:

	Turkish pounds.
Date tax	8,447,900
Dates on oases	443,000
Extraordinary tax on land watered by Ibrahimmeh Canal	3,299,300
Taxes on tobacco and tumbac (local)	3,625,500
Taxes on wells	299,900
Taxes on siva	203,000
Taxes on sheep and goats	3,656,100
Total	18,974,700

Live stock not above mentioned is taxed only when marketed.

IRRIGATION.

Nothing is so interesting to me in Egypt as irrigation. Were it not, in fact, for irrigation, there would never have been an historical, a scientific, a classical Egypt. God granted it natural irrigation, and this, aided by artificial works, once gave to Egypt a material existence as grand as its monuments are enduring. Since it is due alone to the employment of the waters of the Nile that agriculture is known in Egypt, and since agriculture is the base of all wealth here, it must be deduced, the wealth of old Egypt being far greater than that of the Egypt of to-day, that these waters were once more widely employed; that they were made to feed the crops of more extended agricultural districts. History as well as the silent evidences of the past proves this, and evidences of to-day begin to show a broader and growing conception of the value of irrigation. The spirit of advancement in this direction was evidenced in the works of Mohammed Ali, in the Barrage and in the grand canals he opened. Ismail Pasha also pushed with great vigor schemes of irrigation; and Thewfik is lending all the aid he can towards their enlargement.

The curious historical and scientific researches of a citizen of the United States have unfolded a huge plan of irrigation, known to the ancients, and the present Egyptian Government at this time seems disposed, after at first turning a deaf ear to his propositions, to profit by this man's philosophy. The darkness which spread over Egypt in the Byzantine period, and which grew denser still under the supremacy of the Mamelukes, was dispelled by Mohammed Ali, and, unless foreign power again re-establishes decay, it may be expected that in a few generations it will be entirely dispelled.

The processes of irrigation are, I am satisfied, just about as they were thousands of years ago. Partial use of steam power has created slight changes, but the shadoof and the sakeeyek are yet almost supreme, and, in fact, as they are worked, it may be said they have no superior.

The shadoof is made of two posts about five feet high, set into the earth [illegible] the tops by a horizontal bar. Across [illegible] one end a weight

Egyptian with the aid of this machine elevates a marvelous quantity of water. Often the shadoof is double, when it is worked by two men, with a corresponding increase in the elevation of water.

The sakeeyeh is a vertical wheel, often thirty feet in diameter, with earthen pots attached by cords to its circumference, another small vertical wheel with cogs fixed to the same axis, and a large horizontal cogged wheel, which, turned by one or two buffaloes, cows or other animals, sets the other two wheels in motion, thus raising the water by means of the pots. These machines are largely used in Lower Egypt, along the river banks, and on the margins of the canals and ditches, where a single shadoof or sakeeyeh does the work of elevation. In Upper Egypt, where the land is much more elevated, two, and often more machines, one above the other, are employed.

In the lower Delta, where the elevation of the cultivated soil is very slight, a modification of the sakeeyeh, called the taboot, is much used. It is a very light, easily moved wheel, with hollow fellies instead of pots, and it is turned by the hand of a man. Many of the water-wheels in the Fayoom, one of the richest provinces of Egypt, are often so contrived as to be moved by the weight of the water itself.

The cultivated fields are divided into squares of raised ridges of soil, and into these squares the water is admitted, one after another, until the entire field proposed to be irrigated is saturated. The Egyptian agriculturist is satisfied with nothing less than thorough saturation of the soil when he concludes to water his crops. Cotton and sometimes other growing crops are seriously injured by this excessive process. The busiest season of the year with the water is during highest Nile—September and October—when vast areas of land are inundated, after the long, hot summer, preparatory to sowing the fields in wheat, oats, barley, and clover. The lands are then inundated, and afterwards dried off by turning the water away until they reach a superb condition for plowing, when they are broken up with plows. The grain is sown in every furrow as the breaking process goes on, and then the square ridges in the soil, referred to above, are prepared to admit of subsequent systematic irrigation of crops. The water from the irrigating-machines is conveyed to different portions of the fields by means of gutters (raised channels formed in the soil), out of which it is admitted to the numerous little squares which checker the fields.

In studying irrigation in Egypt my mind constantly wanders back to my own country, where, especially in the Southwest, untold benefits might be derived from the very same processes which enabled Joseph to sell corn to his brethren of adjacent drought-stricken lands. The effect of fearful droughts in many parts of the United States might be greatly lessened by a proper employment of the water of rivers in sustaining growing crops. In Egypt irrigation may be studied to greatest advantage; and, though the first impulse is to laugh at methods employed, in the end one regards them as most effective and very cheap.

THE BARRAGE.

Mohammed Ali had the credit of beginning this great work in 1847, under the advice and direction of the

tide of about eight months, so as to supply water in the canals and ditches of the Delta on a level with the cultivated soil. In an economic light it was calculated that this superb work would, as a return for the enormous sums of money required in its construction, do away with thousands of sakeeyehs and shadoofs, the working of which required a vast expenditure of human and animal energy that could be more profitably employed in planting crops and cultivating the soil. In addition to this it was known that successful inauguration of this new plan of irrigation would change wide wastes into most profitable farming districts, and that, while thus bettering the material condition of Egypt, her revenues would be much augmented. It took a master mind like that of Mohammed Ali to see conditions arising from so great a work. It took base intrigue and petty jealousy to deny for many years the feasibility of such a conception of genius.

Not long ago I visited the Barrage. It is a work of huge proportions, stretching across the two branches of the Nile, and across the head of the Delta lying between them. To form a conception of this work, imagine the Mississippi River dividing at New Orleans into two channels, with these two passages obstructed by a great weir of the most substantial masonry planted across the bed of each stream, possessing such mechanical appliances as would readily raise the waters of a low river to that of one in full flood, so as to spread them over the lands of the Delta as food in needy seasons to hungry vegetation. Think of such a structure, broad, massive, deep, resting upon an alluvial bed of mud, but as solid as the hills, with a power to raise water to a proper height for irrigating the plantations of lower Louisiana, and you will understand the value of the Barrage in a country where rain is almost unknown.

To give a view of the Barrage from an architectural standpoint would require more space than would be justifiable in this report. But I may be permitted to say that its appearance is not only very beautiful, with noble front and a grand general effect, produced by the long lines of massive arches, with crenelated towers and turrets, but its evident solidity is suggestive of its having been put there, like the Pyramids which rise in the distance, to stay. It is a monument to modern Egyptian genius, almost as grand as the massive pile of stone which marks the spot where once reposed the mortal remains of King Cheops.

Through the arches of the Barrage flow the waters of the Nile; and across these massive gateways water-barriers are adjusted, to dam the flow of the river until its swell fills the canal, which is opened into the Delta between the Damietta and Rosetta branches of the great river. The width of the Damietta branch is 543 meters, and at high Nile there pass through it 4,738½ cubic meters of water per second, the mean velocity being one meter per second. The Rosetta branch is 464 meters wide, and at high Nile there pass through it 4,738¼ cubic meters per second, the mean velocity being 1.70. The arches over the two [illegible] tively 72 and 62, each one having a span of 16 feet. [illegible] and massive earthworks

The ancient Egyptians utilized the waters of the Nile for irrigation to a greater degree than the Egyptians of to-day. They put into practical operation measures only dreamed of at this time, for many of the channel-ways of some of the old canals are now wholly unknown. The ancients cultivated more soil than the moderns; they produced greater crops; they were possessed of greater wealth. One ancient Egyptian king had more money in his private vaults than is now contributed in a twelvemonth to the entire Egyptian Government. The great wealth of old was derived from proper distribution and utilization of the waters of the Nile, and it is to the resolution of this subject that moderns must address themselves if they would free Egypt from the oppressions of the European bondholders. Mohammed Ali inaugurated a new Nile era. Had he lived till now Egypt would have been one of the very greatest nations of the East. It would have been re-enthronged in grandeur and riches. The Barrage has been at last put into practical operation with great beneficial effects, but this is only the beginning of what may be done.

Egypt has prospered best under its untrammeled native rulers. Foreign intervention has always crippled and dwarfed its efforts. Thewfik Pasha has no voice of his own, and cannot dictate measures of advancement as long as foreigners control public moneys purely for foreign gain.

A GRAND SCHEME.

Under the head of "irrigation" reference was made to a huge plan of irrigation unfolded by an American. When Herodotus visited Egypt, B. C. 454, he enumerated various great monuments and public works. Among these he included the Pyramids, but to them he failed to give so great prominence as was given to a vast artificial reservoir, which, in his own words, "excelled all other human productions." "The circuit of its coast," said the historian, "is sixty schoenes, or three thousand six hundred furlongs, which is equal to the entire length of the sea-coast of the Delta. It stretches in its longest direction from north to south, and in its deepest parts is of the depth of fifty fathoms. The water of the lake does not come out of the ground, which is here excessively dry, but is introduced by a canal from the Nile. The current sets for six months into the lake from the river, and for the next six months into the river from the lake. While it runs outward it returns a talent of silver [about $1,060] daily to the royal treasury from the fish that are taken in the canal, but when the current is the other way the return sinks to one-third of that sum."

The Ionian historian was careful to repeat the measurements in such a way as to avoid any possibility of error on the part of his copyist. The circumference of the lake was given by the schoene, an Egyptian unit of length, a day's tow, and could be compared to the distance which separates Alexandria from Port Said. He took pains to insert, that the furlong was a hundred fathoms, or six hundred feet. The depth, also, he repeated, is one-half of a hundred fathoms, or half a furlong. About five centuries later Diodorus from Sicily, Strabo from Asia Minor, Mutianus and Pliny from Rome repeat what was evidently a wide belief regarding a well-ascertained fact.

since the Nile does not attain a uniform and regular height in its inundation, and the fruitfulness of the country depends upon a proper distribution of the water, this lake was formed so as to receive the surplus water, so that it might not drown the land and produce marshes and standing ponds; nor yet, by flowing too little, prejudice the fruits of the earth for want of water. Therefore, a canal was made eighty furlongs in length and three hundred feet broad. Into this they let the water of the river sometimes run, and at other times diverted it and turned it over the cultivable land, at proper seasons, by means of sluices, which were opened and closed not without great labor and cost, for they could not be opened or shut at a less annual charge than fifty talents." These sluices were probably constructed on the system which now prevails in Egypt. The canal or basin was closed by a mound of earth, and opened by cutting the dike.

Diodorus wrote that this lake continued to benefit the Egyptians of his day.

Strabo, who lived about the beginning of the Christian era, was equally unstinted in praise of the "wonderful Lake Mœris, which in extent is a sea, and the color of its waters resembles a sea. Its borders, also, are like the sea-shore. It is able, by its area and depth, to contain the excess of water which flows into it at the time of the rise of the river, without overflowing the inhabited and cultivated parts of the country. On the decrease of the water of the river it distributes the excess of the same canal at each of the mouths, and both the lake and the canal preserve a remainder, which is used for irrigation.

Pliny (A. D. 47) placed this great reservoir 62 miles from Memphis, or 77 miles from where the Nile divided its waters for the formation of its Delta.

None of the ancient writers disputed the accuracy of these statements, and Claudius Ptolemy, the Alexandrian geographer in the second century, gives the latitude and longitude of two places on Lake Mœris, while a series of maps accompanying his text represent a large body of water in the desert to the south of what is now known as the Fayoom. Yet with all this evidence the story of the lake has been rejected by nearly all Egyptologists.

Convinced that there was more in the declarations of the ancients than the moderns gave credit to, Mr. Cope Whitehouse, who came to me a year ago with a letter of introduction from Mr. Bayard, Secretary of State, bespeaking my friendly offices, remained a short time in Egypt in the winter of 1880. Impressed as to the existence of the ancient body of water, Mr. Whitehouse spent the succeeding twelve months in careful investigation of Greek, Latin, Arabic, and hieroglyphic memorials, and as a result he became more convinced than ever of the existence of a great artificial reservoir in Egypt, the destruction of which, about the third century, had ruined a large part of the productive area of the country. His scholarly investiga-

and conversed with him freely, and encouraged him in words, regarding his most interesting researches and explorations. In January last he was in the field, and about the same time Dr. Schweinfürth, a learned German geographer, spent some time examining the depression outlined by the American as the site of the great ancient reservoir.

In February the Egyptian Government detailed an engineer and staff to run an accurate line of levels, the result showing that there is a depression, sinking to a depth of 250 to 300 feet below high Nile, 92 kilometers in length and 31 kilometers at its greatest breadth. It would require a canal of about eleven miles to connect this basin with the Nile. It is held that through this canal water from high Nile could be made to flow in such quantity as would in a few years fill up this great depression and change it from dry desert into a great fresh-water lake. Once filled, it could be converted to the uses of irrigation. The swell of the Nile would annually fill the lake to the level of high Nile, and during low Nile this reserved water could be liberated and sent to the low lands, to contribute, without so much human toil, to the production of crops. So was the ancient Mœris utilized; so may the modern production of American thought and investigation be made to contribute to the wealth of a reinvigorated Egypt. It is held that 5,000,000,000 cubic meters of water may thus be stored in three months to meet the demand during low Nile. Not only is it held that water may be thus stored to satisfy want, but that the great reservoir would, during flood Nile, by the reception of surplus water, protect great areas from ruinous inundations; that great marshes would thus be reclaimed and converted to the use of agriculture; that the expensiveness of irrigation on a larger scale would be greatly reduced; that happy climatic changes would be brought about. At last, sufficiently impressed with the matter, the Egyptian Government is manifesting deeper interest in the scheme of Mr. Whitehouse. Heretofore he has spent only his own money in investigation and exploration; now the Government is beginning to give him substantial aid.

I take much interest in this question for more reasons than one. I desire to see the material condition of Egypt bettered, for it sadly needs bettering. I desire to see the scholarly efforts and the persistent researches of one of my countrymen succeed; to see American mind do good as a counterbalance to harm done by European armies. I hope to see the storing of the surplus waters of the Nile suggest to the American mind the propriety of storing the waters of the Missouri River within great mountain basins, so that the interests of the Mississippi Valley may be protected against devastating floods sweeping down from the Northwest. Here is a problem of benefit to the Nile Valley bearing directly upon industry in one of the greatest agricultural regions of the United States.

RAILWAYS.

The first railway built in Egypt was that between Alexandria and Cairo, in 1845. Its purpose, besides connecting the two great cities of Egypt, was to form part of the railway line between Alexandria and Suez, now partially disused because of the opening of the great int-

has been good. There are no viaducts, tunnels, &c., and only two very expensive bridges, which span the two branches of the Nile on the Alexandria-Cairo line.

The mode of construction is in raised earthen road-beds only a few feet high, upon which are laid cast-iron chairs resembling huge over-turned saucers, separated by transverse round bars firmly fastened to the chairs. Two chairs thus connected form the parallel ties and the rests for the rails, and the iron way thus formed is as solid and substantial as though laid upon live-oak ties firmly ballasted in rock. Formerly nearly all the employés on the railway lines were foreigners, but now they are mostly natives. Railway administration is in the hands of a commission, which, in stipulations, it was agreed should be composed of two foreigners and one native, the latter a Mussulman as well. So it was composed until very lately, when charges were trumped up, as many believe, against the native for insulting a bailiff intrusted with service upon him. On a charge of contempt of court the official was arrested, tried, convicted, fined heavily, and sentenced, besides, to six months' imprisonment. Of course his degradation removed him from the administration, and his place was given to an Armenian, a foreigner himself and devoted to foreign influence. The administration is not good, and as a consequence the Egyptian Government, which owns the railways, does not receive such remuneration for their operation as is justified by the business of transportation.

The railway lines of Egypt present a total of 1,247 miles. Divided into districts, as operated under their administration, the following table may be presented:

Districts.	Single lines.			Sidings.			Total single lines and sidings.		
	Miles.	Chains.	Links.	Miles.	Chains.	Links.	Miles.	Chains.	Links.
First	173	20	.....	25	63	21	199	3	21
	133	40	.....	38	20	60	171	60	60
	48	60	.....	4	39	20	53	19	20
Second	160	40	.....	13	49	80	174	9	80
Third	256	20	.....	20	21	33	276	41	33
Fourth	167	20	.....	14	45	32	181	65	32
Fifth	177	60	.....	12	66	95	190	46	95
Sixth	1,117	20	.....	129	66	41	1,247	6	41

INDUSTRY.

This subject belongs more to agriculture than to anything else, which has been reviewed as extensively as is admissible in this report under its distinct consideration. The bulk of population, it has been shown, [illegible] in working the soil.

[illegible] be regarded as one of the newest [illegible] enterprise un-

While refined sugars are not made at the mills in the planting districts, the unrefined article comes nearer refinement than any crude production of sugar I have ever observed; and I have been at mills in many parts of the world.

The Egyptian sugar is of the clearest amber color, with large crystallizations, perfectly dry when it comes from the mills. In taste it is as purely refined as the best East India loaf sugar, lacking refinement in its crude state only in color, which, however, is truly beautiful.

There are over twenty sugar mills or manufactories in Egypt, most of them in the province of Minieh, in Upper Egypt. It was the purpose of the Egyptian Government to largely encourage the production of sugar-cane in the Soudan, but Egyptian influence, as you know, has been suspended in that part of Africa.

Paper.—Ismail Pasha built a splendid paper-mill at Boolak, and the manufacture of paper was carried on there upon a large scale. The finest papers were being manufactured, but foreign intervention drove Ismail from Egypt, and the paper-mill was closed, and England continues to supply Egypt with most of its paper. The machinery of the immense Boolak mill is lying idle and is being destroyed by rust. Observation convinces me that Yankee energy could be profitably directed not only in the manufacture of paper in Egypt, but that first-class manufactories in the United States might fill large orders for papers in Egypt. The Egyptian Government consumes a vast amount of paper of the best quality, and it pays high prices for it. There is at present no prospect of paper manufacture being resumed in Egypt.

Printings.—There are quite a number of printing establishments in Cairo and in Alexandria. A number of newspapers are printed in Arabic, and others in French, English, Italian, German, and Greek. The Government grants permits for the publication of newspapers and periodicals and reserves the right to suspend their publication for cause. The noted case of the *Bosphore Egyptien* was taken into the mixed courts and judgment against the Government for suspension was fixed at 125,000 francs. One or two other papers have been suspended within the last twelve months, one an Arabic journal, on the complaint of the Sultan's high commissioner in Egypt, on asserted disrespect for the Porte and its commissioner. The Government has its own printing department at Cairo, and the work turned out of it is magnificent in execution.

Natron and salt.—Large quantities of natron and salt are found in different parts of the valley of the Nile, and their extraction from the soil gives employment to a considerable number of people.

The quarrying of stone and the making of lime are both important industries. The Government keeps a large number of convicts at work in quarries.

Fishing.—Fishing is an important industry, and the Government receives therefrom a variable annual revenue.

In another part of this report reference is made to the very important industry of artificial egg-hatching. The oven crop of chickens annually is placed at from 10,000,000 to 12,000,000 of the feathered tribe.

Miscellaneous.—Some very substantial and most durable woolen goods are manufactured in Egypt; also silk and cotton stuffs. The dyeing of

ties. Every woman in Egypt, rich and poor alike, strains a point to invest in jewelry, composed of standard metal inspected by the Government. Ornamental wood-work is another important industry. Furniture made in the arabesque style is greatly used, and quantities of it are taken every year by travelers to send to their homes in Europe and in America. Great numbers of articles are made of the trunk, branches, and leaves of palm trees, such as seats, bed-frames, chests, baskets, mats, brooms, and ropes. There is also much distillation of scents and essences. The ginning of cotton is a necessary adjunct of cotton production. It is not done by the producers of cotton, but in large establishments, in the cities and towns, from which transportation is easy. The cotton in the seed is taken to the "factories," as the ginning establishments are called, and in these the product is prepared and baled for market. The gathering, preparation, and baling of rags for market is quite an important industry, giving employment to a good many people. The manufacture of antiquities is one of the minor industries, patronized by the uninitiated traveler.

The Egyptians display the most wonderful tact in all industrial arts. They are possessed of great capability, subject to any degree of expansion.

ANIMAL INDUSTRY.

Of domestic animals in Egypt, the principal are, the camel, the horse, the donkey, and mule; the cow and the buffalo; sheep, goats, hogs, dogs, and cats. Of the camel, the buffalo, and the horse, it would appear the ancient Egyptians knew nothing, since representations of none of them appear in the older records; and this is also true as to the sheep. No traces of the existence of the horse appear in Egypt until after the return of Thothmes III from his Asiatic conquests. Even at this day the horse is not much used in the country among agriculturists, but is mostly confined to use in the cities and larger towns. The camel and the ass are at present necessary component elements in the material condition of Egypt. The camel is used to ride, to bear heavy burdens, to draw the plow, and to raise water for irrigation; the ass is used to ride, to bear heavy burdens, and is an ever-present, patient creature, ready for any task. Camels and asses move the entire industrial production of Egypt. All the products of agriculture are taken from the fields to the villages and the distant markets on the backs of camels and asses. The two seem to be as indispensable to agriculture as are the waters of the Nile.

There are two varieties of camel in common use—the heavy beast of burden and the graceful riding animal, with a speed and movement as brisk and smooth as the wind; the former valued at from £5 to £10, the latter, according to style and training, at from £15 to £30.

The common ass sells at almost any figure; but there is a royal white breed, used for riding-animals, single specimens of which have been to sell as high as £200, while £100 is a very common price. This greatest purity about Mecca, and

Egypt, are identical with animals, figures of which appear in the ancient records. The breed seems coexistent with the being of man in the valley of the Nile. This cow possesses most valuable qualities as a milker, and works patiently at the water-wheel, and even at the plow. The ox is raised for toil in the fields and for the production of meat. The very great similarity between the Egyptian cow and the Jersey cow suggests to my mind that the latter was probably originally introduced from the East. The Egyptian cow possesses the same form, with its graces, that belongs to the Jersey, the only perceptible difference being in the neck, which is not so delicate as that of the Jersey, while the horns are far more diminutive. The color is generally dark red, with brown or black points. The milk is very rich in oil, and the butter made from it is of a deep yellow color.

The buffalo (African) is largely produced, and is kept for the same purposes as the cow and the ox. The males are generally marketed while young, for veal, or, when a little older, for beef. The cows grow to a huge size, great glossy black, almost hairless beasts, of angular parts; and they are very largely used, not only for the production of milk and butter, but in consequence of their great power and endurance as beasts of labor. They draw the plows, move the water-wheels, and carry burdens. They are semi-amphibious in nature. It is a novel sight to see droves of them sporting in the waters of the Nile and of the canals. They sport as joyously in the water as seals. Some of the natives believe they are a cross between an ancient cow and the hippopotamus. The milk produced by the buffalo has a strong flavor, unpleasant to tastes not cultivated to its use, and the butter produced from the milk has in a much slighter degree the same taste.

Once in a while murrain takes off vast numbers of cattle in Egypt, and owing to this the breeding of the buffalo—almost exempt from the disease—has very largely taken the place of the common cow.

Sheep and goats are produced in large numbers. Of the former the fat-tailed species are most highly prized. Of the latter the angular-nosed species are the most profitable for dairy purposes, for which the goat is largely used.

A Mohammedan never associates with the hog in any way, considering the brute a most unclean thing; therefore the hog is reared only by Copts and Europeans.

The "pariah," or native dog, is also regarded by natives as an unclean animal, and it is tolerated only as a public scavenger. A large, rough-haired black dog, peculiar to Egypt, is noted for its ferocity and courage.

The ancient Egyptians were probably larger breeders of live stock than the modern. The former were a pastoral as well as an agricultural people. While they did not, as already stated, have all the animals of the present day, they had and reared in large numbers some now hardly known as domestic animals, among them the gazelle, the oryx, the ibex, and others of the antelope tribe.

Of wild animals in Egypt there are not many. Specimens of the wild boar are to be found in the Delta and in the Fayoom. The hyena skirts the deserts in search of food and prey. The gazelle is often found where the desert nearly approaches the Nile, and the antelope exists near the Natron Lakes and the Oases. The "moufflon" or maned

The last enumeration of domestic animals was in 1879. It is as follows:

Table of live stock in Egypt by provinces and municipalities.

Provinces and municipalities.	Cows, oxen, and buffaloes.		Horses.		Camels.	Donkeys and mules.	Sheep and goats.	
	Male.	Female.	Male.	Female.			Male.	Female.
Beherah	5,339	10,242	221	98	1,099	4,377	1,350	5,867
Guizeh	1,470	4,587	48	136	1,069	3,078	1,478	10,984
Kalionbieh	6,078	7,540	49	74	820	3,402	4,529	17,554
Charkieh	11,291	10,475	105	120	1,135	5,422	7,970	15,559
Menoufieh	11,154	33,059	59	59	4,604	15,214	4,296	32,038
Gharbieh	15,383	30,336	437	395	3,493	15,651	13,725	47,946
Dakahlieh	17,581	17,373	211	249	1,801	7,546	3,790	23,628
Beni-Souef	1,409	5,002	78	232	834	1,960	2,160	12,645
Fayoom	679	1,954	46	69	167	1,738	1,064	11,906
Minia	2,665	4,489	164	285	685	3,045	2,140	10,811
Assioot	2,041	5,816	166	380	3,088	5,126	8,196	21,843
Guergeh	2,255	8,136	151	307	2,560	5,730	5,118	19,796
Keneh	1,938	4,671	75	67	1,948	5,204	3,238	8,041
Esneh	1,071	3,154	47	69	1,063	3,052	2,953	11,681
Municipalities	233	905	1,109	235	2,505	7,337	6,001	1,140
Totals	80,587	147,739	5,966	2,775	26,871	87,882	68,608	251,439

BIRDS.

Of domestic birds there are reared great numbers, especially turkeys, geese, chickens, and pigeons. The turkeys are superior to those raised in Europe, and are quite as good as those of North America, whence this magnificent species of fowl creation has found its way to all parts of the globe. Geese are very fine. Chickens are generally very small, but are good; they are great producers of small but delicious eggs. Pigeons are reared in vast numbers, and the young birds are marketed in most excellent condition, as are also the other fowls. They are taken to the market places alive, and turkeys, geese, chickens, pigeons, and domesticated rabbits are, when selected, killed and dressed before the purchaser's eyes. Grown turkeys sell at retail for from $1 to $2.50 each; geese at from $1 to $2; chickens at from 40 cents to $1; eggs at from 8 cents to 20 cents per dozen.

FOOD PRICES.

Having given the prices of the above necessities of the table, permit me to give others. Beef and mutton are good, and in the markets they are tolerably well served. Choice beef sells for from 20 to 40 cents per pound, and mutton at nearly the same price. Vegetables are very plentiful and sell at reasonable prices. Native fruits are cheap enough. The finest oranges retail at from 1 to 2 cents each; lemons at the same price; limes at about 8 cents per dozen; fresh dates at 5 cents a pound; and the finest grapes in the world, for five months in the year, at from [illegible] pound. Such prices as I quote rule at Cairo, and they [illegible] are abundant, but not good.

COMMERCE.

The commerce of Egypt is very considerable. The chief exports are cereals, cotton, sugar, rice, rags, hides, and skins. The chief imports are cotton goods, coal, wines, oils, and machinery.

I have waited until the last moment possible for the compilation of this part of my report, hoping to be able to make a report of trade for the year 1886, but I am just in receipt of a letter from the Egyptian director of customs, dated December 30, 1886, stating that it will be impossible for him to present me with the statistics desired for some time to come. I may here add, that the statistics for the commercial year, ending August 31, 1885, were not made public until twelve months after the year ended. It may therefore be impossible to secure returns for the last year until nearly twelve months from now, all of which is very annoying.

Herewith is presented a table giving the value in Egyptian pounds (1 pound equals $5) of imports and exports from 1874 to 1885, general, and from and to the United States:

Imports and exports of Egypt, from 1874 *to* 1885.

Year.	General.			United States.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
1874	£5, 070, 741	£13, 423, 472	£18, 494, 213	£66, 883	£20, 290	£87, 173
1875	5, 619, 466	13, 333, 334	18, 952, 800	58, 039	19, 532	77, 571
1876	4, 253, 191	13, 561, 285	17, 814, 476	40, 393	39, 970	80, 363
1877	4, 493, 441	12, 756, 232	17, 349, 673	101, 088	39, 561	140, 649
1878	4, 844, 341	8, 097, 276	12, 941, 717	86, 693	26, 873	113, 566
1879	5, 002, 163	13, 439, 058	18, 441, 221	93, 371	26, 669	120, 067
1880	7, 794, 810	13, 154, 092	20, 948, 902	74, 975	98, 856	172, 931
1881	8, 201, 018	13, 178, 271	21, 379, 289	145, 463	49, 962	195, 425
1882	6, 423, 530	10, 993, 570	16, 416, 100	113, 201	30, 212	143, 413
1883	8, 021, 387	12, 309, 886	20, 331, 273	97, 929	29, 863	127, 765
1884	8, 363, 998	12, 679, 413	21, 043, 411	134, 903	4, 100	139, 003
1885	9, 198, 415	11, 743, 064	20, 941, 479	115, 851	29, 105	144, 956

As heretofore stated, statistical reports for 1886 are at present unattainable, and yet I have been able to gather points out of which the following table is made:

Items.	1885.	1886.
Duties on imports	£547, 261	£477, 8[illegible]0
Duties on exports (abroad)	99, 229	87, 25[illegible]
Duties on exports to Turkey	26, 988	25, 970
Duties on tobacco	212, 265	304, 475
Sundry receipts	34, 868	36, 560
Totals	920, 613	932, 150

The above figures indicate no material change in the values of imports and exports combined, but were it not for the increased duty on tobacco there would not be so good a showing for revenue. A decrease of about £70,000 in duty on imports for 1886, means a decrease of nearly one million on the value of imported goods, which signifies a diminution of over 12 per cent. on the purchasing power of Egyptians, another evidence of retrogression caused by foreign oppression.

It has been mentioned elsewhere that the duty on all imports as well as exports, is 8 per cent. ad valorem.

Value of merchandise imported, exported, and re-exported from 1884 *to* 1885.

Country of production or destination.	Years.	Total.	Importation.	Transit.	Exportation.	Re-exportation.
England	1885	£10, 990, 064	£3, 401, 347	£646, 419	£6, 909, 913	£32, 385
Do	1884	12, 286, 656	3, 090, 097	691, 065	8, 504, 594	.....
English possessions (Mediterranean)	1885	156, 071	137, 297	156	13, 705	4, 913
Do	1884	158, 864	122, 865	549	35, 450	.....
English possessions (Oriental)	1885	468, 754	451, 739	1, 162	11, 541	4, 312
Do	1884	463, 635	458, 873	2, 081	2, 681	.....
Germany	1885	51, 449	48, 104	136	637	2, 572
Do	1884	43, 161	39, 492	129	3, 540	.....
America	1885	146, 142	115, 851	665	29, 105	521
Do	1884	139, 008	134, 903	5	4, 100	.....
Austria-Hungary	1885	1, 801, 814	1, 098, 300	985	674, 754	27, 775
Do	1884	1, 671, 516	999, 441	1, 234	670, 841	.....
Belgium	1885	72, 302	70, 513	50	345	1, 394
Do	1884	87, 079	64, 985	.....	22, 094	.....
China and extreme Orient	1885	23, 861	22, 265	167	978	451
Do	1884	12, 153	11, 703	75	375	.....
Egyptian coasts on Red Sea	1885	126, 603	35, 056	5, 836	32, 823	52, 888
Do	1884	102, 134	39, 658	25, 735	17, 475	19, 266
Spain	1885	218, 936	541	.....	218, 383	12
Do	1884	170, 198	95	.....	170, 103	.....
France	1885	1, 914, 002	995, 153	503	908, 316	10, 030
Do	1884	2, 030, 051	914, 497	1, 008	1, 114, 546	.....
French possessions (Mediterranean)	1885	51, 876	41, 174	.....	8, 983	1, 779
Do	1884	27, 813	24, 218	.....	3, 595	.....
Greece	1885	115, 226	66, 931	203	46, 814	1, 278
Do	1884	164, 349	77, 024	98	87, 227	.....
Holland	1885	4, 661	2, 014	58	2, 581	8
Do	1884	3, 212	2, 996	.....	216	.....
Italy	1885	1, 234, 327	328, 177	652	901, 284	4, 214
Do	1884	1, 074, 453	310, 386	421	763, 646	.....
Morocco	1885	43, 554	42, 727	203	624	.....
Do	1884	31, 465	31, 141	324	.....	.....
Persia	1885	15, 601	15, 019	.....	582	.....
Do	1884	12, 273	12, 273	.....	.....	.....
Russia	1885	1, 666, 842	394, 663	522	1, 269, 612	2, 045
Do	1884	888, 683	227, 410	312	660, 961	.....
Turkey	1885	2, 368, 247	1, 855, 731	1, 149	354, 786	156, 581
Do	1884	2, 293, 658	1, 726, 265	1, 718	454, 588	111, 087
Other countries	1885	129, 903	75, 603	160	39, 204	14, 936
Do	1884	109, 278	74, 776	1, 474	33, 028	.....
Totals	1885	21, 600, 235	9, 198, 145	659, 026	11, 424, 970	318, 094
	1884	21, 769, 639	8, 363, 998	726, 228	12, 549, 060	130, 353

Value of merchandise imported from and exported to the United States during 1884–'85.

Articles.	1885.	1884.
Imported.		
Skins and articles in leather	£1, 107	£142
Animals and animal produce	.....	571
Grain and vegetable produce	.....	34
Spirits, liquors, and oils	115, 689	134, 059
Rags, paper, books	8	.....
Coal and wood	2	7
Cotton industry	.....	15
	9	3
	36	72
	.....	134, 903

Value of articles imported from and exported to the United States during 1884–'85.

Imported.	
Silk and woolen goods	£36
Wines	9
Petroleum	115,677
Tanned skins	107
Refined oils	4
Books and other printed matter	8
Articles of minor importance	10
Total	115,851
Exported.	
Cotton	1,409
Rags of all kinds	24,331
Articles of minor importance	3,353
Various articles, and baggage	12
Total	29,105

Value of merchandise imported and exported during 1884–'85. (*Carried to* 100,000.)

Country of production and destination.	Years.		Periods of five years.	
	1885.	1884.	1879–'83.	1874–'78
Importation.				
England and English possessions	$38,472	$38,425	$39,205	$55,526
America	1,259	1,613	1,438	1,476
Austria-Hungary	11,940	11,949	11,294	10,373
France and Algeria	11,266	11,223	14,442	19,160
Greece	728	921	238	412
India and extreme Orient	5,153	5,626	4,872	4,798
Italy	3,568	3,711	3,486	4 510
Russia	4,291	2,719	1,931	1,118
Turkey and dependencies { taxed	1,998	3,419	3,780	1,687
Turkey and dependencies { prepaid	18,558	17,695	17,918	.....
Other countries	2,767	2,699	1,396	940
Exportation.				
England and English possessions	60,601	68,053	66,792	71,900
America	255	33	377	233
Austria-Hungary	5,905	5,346	3,754	4,701
France and Algeria	8,030	8,910	9,102	11,078
Greece	410	695	821	425
India and extreme Orient	109	24	40	.....
Italy	7,889	6,085	6,392	4,121
Russia	11,112	5,267	7,488	3,858
Turkey and dependencies { taxed	3,392	3,762	3,913	3,198
Turkey and dependencies { prepaid	.....	.....	.....	.....
Other countries	2,296	1,825	1,321	486
Total.				
England and English possessions	50,731	56,204	56,624	67,296
America	704	664	768	583
Austria-Hungary	8,597	7,987	6,533	6,296
France and Algeria	9,473	9,835	11,070	13,350
Greece	551	785	606	421
India and extreme Orient	2,359	2,265	1,821	1,349
Italy	5,961	5,136	5,321	4,230
Russia	8,070	4,248	5,440	3,088
Turkey and dependencies, taxed and prepaid				

In consequence of the absence of quick direct transportation between the United States and Egypt neither the demand for the products of the United States in Egypt, nor *vice versa*, can be given. Quantities of canned fruits and vegetables and meats prepared in the United States are consumed in Egypt, but they are not embraced in direct trade, and therefore cut no figure in trade declarations. Such products are ordered from dealers in England, who deal directly with the manufacturers in the United States. The same relation applies to notions, patent medicines, and in less degrees to other products. Therefore, while the visible trade amounts at present to about $750,000, it would figure, with direct quick transportation, at about $1,000,000; and were such transportation afforded it would not be very long before the trade between the two countries would be doubled.

I had hoped to have matter in hand to present in this report the business of the Suez Canal, and also a comprehensive statement of wages in Egypt. But up to the date of closing I have not been able to procure the necessary data for either purpose; very shortly, however, I am confident, it will be in my power to do so.

JOHN CARDWELL,
Agent and Consul-General.

UNITED STATES CONSULATE-GENERAL,
Cairo, January 10, 1887.

Suez Canal traffic for the year 1884.

Nationality.	Steamships.		Nationality.	Steamships.	
	No.	*Tons.*		*No.*	*Tons.*
British	2,473	4,469,246.91	Egyptian	4	2,766.22
French	300	568,030.39	Ottoman	4	1,758.56
German	130	168,879.77	Portuguese	4	2,823.70
Dutch	145	264,239.50	Sarawak	1	178.82
Italian	55	115,713.15	American	4	5,498.22
Austrian	65	106,267.76	Japanese	13	12,565.82
Russian	17	29,616.39	Belgian	5	7,161.56
Spanish	46	96,352.09			
Norwegian	18	24,235.73	Totals	3,284	5,875,434.59

Suez Canal traffic during the year 1885.

Nationality.	Steamships.		Nationality.	Steamships.	
	No.	*Tons.*		*No.*	*Tons.*
British	2,730	4,341,792	Portuguese	5	3,864
French	293	620,363	Swedish	4	4,515
German	155	206,792	American	3	2,149
Dutch	139	247,918	Danish	3	1,268
	109	167,159	Japanese	2	2,548
		112,579	Belgian	1	1,007
				1	21
				1	515

Suez Canal traffic during the year 1886.

Nationality.	Steamships.		Sailing vessels.	
	No.	*Tons.*	*No.*	*Tons.*
British	2,345	4,132,805	1	17
French	227	484,717	.....	.....
Dutch	126	226,220	.....	.....
German	159	213,675	.....	.....
Austrian	77	129,078	.....	.....
Italian	67	120,670	.....	.....
Swedish and Norwegian	27	34,680	.....	.....
Russian	24	36,424	.....	.....
Spanish	26	60,702	.....	.....
Japanese	4	4,514	.....	.....
Portuguese	5	1,936	.....	.....
American	7	6,261	.....	.....
Egyptian	5	2,167	.....	.....
Ottoman	5	1,952	1	24
Danish	1	863	.....	.....
Jerusalem	.....	.....	.....	.....
Greek	.....	.....	2	95
Persian	.....	.....	.....	.....
Totals	3,105	5,456,664	4	136

Arrival and departure of American vessels at the consulate of the United States at Port Said, Egypt, during the year ended December 31, 1886.

Date of arrival.	Class.	Name.	Tonnage.	Where belonging.	Where from.	Where bound.	Date of clearance.
Mar. 23	Yacht	Namourna	282	New York	Nice	Red Sea	Mar. 23
May 4	Merchant	Starbuck	1,584	do	New York	Hong-Kong	May 5
July 16	Man-of-war	Trenton	1,625	United States	Yokohama	Hampton Roads	July 17
Oct. 4	do	Brooklyn	1,331	do	Malta	Aden	Oct. 5
Oct. 31	do	Essex	365	do	do	do	Nov. 1
Dec. 11	do	Ossipee	828	do	Hong-Kong	New York	Dec. 13

Arrival and departure of American vessels at the consulate of the United States at Port Said, Egypt.

YEAR ENDED DECEMBER 31, 1884.

Date of arrival.	Class.	Name.	Tonnage.	Where belonging.	Where from.	Where bound.	Date of clearance.
Feb. 24	Man-of-war	Trenton	1,625	United States	Naples	China	Feb. 26
Mar. 29	do	Kearsarge	695	do	Alexandria	Syria	Mar. 30
Mar. 31	Merchant	San Pablo	2,112	New York	New York*	Shanghai	Apr. 1
June 16	Man of-war	Richmond	1,525	United States	Hong-Kong	New York	June 17
July 5	do	Ossipee	828	do	Messina	China	July 7

*Cargo general.

YEAR ENDED DECEMBER 31, 1885.

May 8	Man-of-war	Marion	551	United States	Malta	Hong-Kong	May 12
Oct. 17	do	Omaha	633	do	Naples	China	Oct. 18
Nov. 19	Yacht	Brunhilde	167	do	Alexandria	Suez	Nov. 21

SOUTH AUSTRALIA.

Report of Consular Agent Smith on the commerce and industries of South Australia.

The past year has been one of the most disastrous ever experienced by the colony. As was intimated in last year's report, the harvest turned out a failure; the wool market was depressed, the copper market still more so, and throughout the community a time of unprecedented commercial depression told severely upon all classes. When it was hoped that matters had come to the worst, in the month of February a most unexpected and terrible disaster occurred in the stoppage of the Commercial Bank of South Australia, owing to a system of fraud which had been carried on for years by the manager and subordinates, finally bringing upon the unfortunate shareholders losses totaling about £280,000, and wide-spread misery followed, resulting in the criminals now undergoing penal servitude, with hard labor, at the stockade for periods of eight and six years each, the late manager having earned the doubtful reputation of having caused more commercial disaster and extended more misfortune than any other man during the forty-nine years of the colony's existence, as well as causing a severe shock to large commercial houses. Even at the time of writing this (December 11), another local banking establishment is the subject of something approaching a scandal, large advances having been made to the chairman, directors, and others, upon which a great loss will arise, in all probability, the money having been advanced to persons both in and out of business on inadequate security, or on none at all. There is certainly room for improvement in the management of some of the banking institutions in the colony, for while extravagant overdrafts have in many instances been made to persons standing rather high in the social scale, to poorer, honest, plodding tradesmen timely assistance is too often withheld. It is a singular fact that in the Australian colonies, the past year has been remarkable for frauds perpetrated by bank officials. In the month of April a report was circulated damaging to the savings bank, one of the soundest financial institutions in existence, and one having a system of audit and supervision so complete as to render it almost impossble for the least fraud to go a day undetected. However, a number of depositors belonging to the working classes were seized with a panic, and the consequence was a run on the bank. The institution, however, was in a position to stand it; the newspapers published reassuring articles, which had the effect of restoring confidence. The official banking returns for the September quarter of 1886, compared with those of 1885, are as follows. Some allowance must be made for the fact of the Commercial Bank of Australia having disappeared from the list of local banks since [illegible] quarter ending September 30, 1886, show drawing in on

Items.	1885.	1886.
Deposits not bearing interest	£1, 649, 360	£1, 377, 740
Deposits bearing interest	4, 155, 438	3, 747, 396
Total deposits	5, 804, 791	5, 122, 136
Totol average liabilities	6, 432, 694	5, 656, 530
Assets, coined metal, bullion, &c	1, 333, 472	1, 283, 980
Public securities	25, 692	22, 600
Land and buildings	405, 793	385, 646
Notes and bills of other banks	64, 505	66, 109
Balance due from other banks	228, 058	203, 417
Bills discounted and other debts due other banks	10, 179, 680	10, 009, 182
Total average assets	12, 237, 200	11, 965, 936

But taking the total liabilities for the corresponding quarters of the two years, and the total assets for the same periods, while both are less for the September quarter of 1886, we find a much better state of things than might at first be supposed from the above figures when we strike a balance, for it shows that the net assets after deducting the liabilities are £495,400 more this year than last.

On June 30, 1886, the amount at the credit of depositors, including interest, was £1,653,080. The number of deposits made during the year was 109,622, the amount £958,819, as against 112,119 and £912,181 in 1885. The depositors receive at the rate of 4½ per cent. per annum. The average of depositors to the total population of the colony, estimated at 316,000 on June 30, is as 1 in 5.72, or about 17 in every 100 persons; the average amount at the credit of each depositor was £29 18*s*. Considering the last year's commercial depression, the returns speak well for the future of the people of this colony.

AGRICULTURE.

The year now closing has been one by itself as to the nature of the seasons, which have been entirely one of the usual course. The most experienced persons were puzzled as to the forecasting harvest prospects. At the early part of the season the outlook was very bad, but late rains have improved the crops very much, many parts turning out as much as 12 and 15 bushels per acre being reaped; but the large area badly cultivated, or attempted to be cultivated, where everything in nature is against the farmer, will bring down the average, which, however, is likely to be about 6 bushels to the acre of fine healthy wheat. The area under cultivation is not far short of 2,000,000 acres. After deducting what will be required for seed and home consumption, there should be left for export, in round numbers, near 200,000 tons for export of breadstuffs, the wretched harvest of last year only allowing an export of 61,362 tons to October 31 of the year.

EXPORTS AND IMPORTS.

The exports of wool this year will be far the largest shipped from South Australia, owing largely to the fact that the navigation of the Upper Murray and the Darling Rivers have been kept open by floods at the right time. The number of bales of wool shipped to the 30th of November, 1886, was 103,221 bales, valued at £1,152,505

POPULATION.

Owing to the severe depression under which the colony has been suffering, a considerable exodus, more especially of the working classes, took place, amounting to some 6,000 souls in the year, who went to the neighboring colonies in the hope of bettering their condition. The government estimate of the population of the colony on June 30 was about 3,000 less than at the close of 1885; or, in round numbers, 316,000. But since the discovery of the gold fields, referred to elsewhere, the tide has turned, and for some weeks the arrivals have been considerably in excess of the departures; besides, the natural increase of births over deaths for the year will be about 8,000, so that the total population on December 31 will probably be 325,000. The returns of births and deaths for the quarter ending September 30 show the former to have been 2,868 and the latter 814. The increase of births is 300 less than that of the corresponding quarter of 1885, but the death rate this year is also much lower, being less than in any year for the last five, and 79 below the general average. This may be fairly placed to the credit of the system of sewerage which has been carried out in the city and the stricter enforcement of sanitary laws generally throughout the centers of population. The births in the September quarter were, 1,439 males, 1,429 females; deaths, 468 males, 346 females. The decrease of deaths is greater among persons under twenty years of age.

SHIPPING, PORT ADELAIDE.

The following return has been published showing the relative proportions between the arrivals of steamers and sailing vessels at Port Adelaide (exclusive of coasting craft) during six months ending August 31: In March there were 25 steamers and 24 sailing vessels; in April, 21 and 25, respectively; May, 24 and 7; June, 19 and 15; July, 24 and 18; and in August, 24 and 14, making in all 137 steamers and 103 sailing vessels; but the aggregate tonnage of the steamers was much larger in proportion than that of the sailing vessels, the former only landing small portions of their cargoes here on their way to the other colonies. The least depth of water in Port Adelaide at low-water spring tides is 20 feet in the channel, with a rise of about 8 feet.

The bonded debt of the colony of South Australia at the close of the present year stands at £18,328,500, or equal to an indebtedness of £56 7*s.* 10*d.* per head of the entire population, estimated at 325,000 souls. A loan of £1,332,400 at 4 per cent. was floated in April, the minimum being fixed at £99. Double the required amount was offered, and the average price received for the loan was £99 9*s.* 5$\frac{7}{8}$*d.* On December 13 these bonds were quoted on the London stock exchange at £104 10*s.* The loan above referred to was appropriated as follows: £505,900 for extending the Great Northern (transcontinental) Railway from Strang- to the Peak; £530,000 for water conservation; £43,000 for

£35,636 and £121,107 more than that of the previous year. The income derived from the railways department was £106,000 less than that of the previous year, and that from the territorial revenue £200,000 less. The expenditure for the year ending June 30, 1886, was £47,233 less than 1884–'85.

The land sales, including the territorial revenue, show unmistakably the severity of the tidal wave of depression which passed over the colony, and which, it is hoped, has now commenced to ebb. The total sales of land for cash during the year 1884 up to December 14, were only 3,624 acres, for £5,803, and the sales on credit were 14,353 acres, for £14,698, making a total for cash and credit of 17,977 acres, for £20,501, as against 206,044 acres, for £279,094, the previous year.

WINE AND OLIVE OIL.

The wine-making industry is steadily progressing and the late Colonial Exhibition in London has given a great impetus to the trade. South Australian wines are now entered on the list of wines at several of the London clubs and are found on the tables of the aristocracy. Olive oil is also manufactured by a comparatively few persons, but the quality of that made in the colony is so excellent that the industry must grow and become increasingly important. The quantity of wine and oil made during the year cannot be ascertained at present.

WOODS AND FORESTS.

As remarked in former report, the planting of forest trees and the conservation of woods and forests very properly receive a large amount of attention in South Australia. The colony is beginning to feel the benefit of it, as a considerable quantity of timber for railway sleepers has been cut during this year, giving a revenue of £2,660 in excess of expenditure, exclusive of special votes. Since the organization of the department ten years ago, £59,043 has been received by it for timber sold, land rented for grazing, &c., and £58,216 has been expended as permanent improvements upon the forest reserves. From the commencement the total net profit made by the department has been £827. The work is very progressive, and every year shows considerable advance beyond the previous one. The revenue of the past year was £8,123, or £1,606 in excess of any former year. No less than 165,324 acres in various parts of the colony are forest reserves, and of this 6,685 acres are inclosed for planting.

The present total value of the permanent improvements effected by the department is estimated at £150,000 for an expenditure of £58,206, spread over ten years, and more than the whole of which has been repaid by sales of timber, rents for grazing, &c.

LIVE STOCK.

For want of statistical returns it is impossible to give even an approximate estimate of the live stock in the colony. Probably the returns of the previous year will not be far out for the present, as far as sheep, cattle, and horses are concerned. Camels and ostriches continue to do well, increasing in number every year.

eling across the continent. News has just been received of his arrival at Port Darwin and subsequent departure by sea on his return to Adelaide. He is said to have discovered some fine country and mountain ranges 12,000 to 15,000 feet in height, higher than were believed to exist on the continent of Australia.

The most important and noteworthy circumstance which has occurred in South Australia during the past year is the discovery of a rich alluvial deposit of gold about 230 miles north of Adelaide, and within 20 miles of the railway line, now nearly completed, to the rich silver district across the New South Wales border, and known as Silverton. The existence of gold in the neighborhood of the recent discovery has long been known, and a reef of ironstone and quartz, yielding gold in payable quantities, from 17 pennyweights to 1¼ ounces per ton of stone, has for many years been worked 15 miles to the west of the newly-found alluvial. The place is called the Teetulpa gold fields, from the name of the sheep-run on which it is situated.

The account here given of it has been furnished by Mr. I. B. Austin, a recognized authority on mining matters in the colony, and who has for ten or twelve years been acquainted with this part of the country as an auriferous district. Shortly after the alluvial discovery was made public he visited the locality, so that much of the information is given from his personal observation. Notwithstanding the fact that gold reefs had been worked for years within a few miles of the place and some prospecting done with the view of finding alluvial gold, the discovery was made quite accidentally. Two men, who had been searching for gold and were camping at a "dam" or water reservoir with some others, went in search of their horse, which had strayed, and while looking for it a thunder-storm came on. The rain washed away some of the soil in a small creek, exposing to view two or three nuggets of gold. The party fossicked them out with three or four more, and after waiting, with the digger's usual caution, until the other men had gone away, they proceeded to open up the ground, which they found so rich, that they at once applied to the warden of the gold fields for a prospector's claim, and the reward of £1,000 offered by government for the discovery of a new and payable gold field. A rush speedily took place, and a number of nuggets were found in the little dry creek, some only two or three inches from the surface and some in the crevices of slate rock.

In about a fortnight from the announcement of the discovery it was estimated that 2,000 men were on the field, but hardly one-fifth of the number had any knowledge or experience of gold digging, and the remainder took a cynical pleasure in denouncing the diggings as a "fraud." Of the few who understood the work by no means all were successful, but a good number were so, some being especially fortunate, as the following facts will show. It should be borne in mind that no washing was attempted for the first fortnight, all the gold being picked out of the dry and friable loamy soil and gravelly wash-dirt. Two boys got out 3 ounces in two days; four men got 16 ounces of rough, nuggety

[illegible] got 18 ounces in eight days; four men got 30

[illegible] from half a penny-

In addition to the nuggets picked out dry, the wash-dirt, since washing has commenced, has yielded fair average results, as, ½ ounce, ¾ ounce, 1 ounce, up to 6 and 7 ounces of gold to the load, *after* having been dry picked. It must be admitted that perhaps more than half the stuff washed has given nothing payable, but taking it altogether, and considering all the circumstances of the case, especially the comparative scarcity of water and the fact that the field has not been fairly worked more than eight weeks, the results obtained have been wonderful.

It is extremely difficult to arrive at even an approximate estimate of the quantity of gold obtained so far, but I should think it not less than 4,000 ounces and probably 5,000 ounces.

One man from New South Wales has a very rich claim about a mile from the original discovery, and he has in about a month obtained over £600 worth of gold; two other men in about five weeks had secured £2,000; a sheep-farmer in five weeks got over £700 worth.

Young fellows under twenty years of age, who have been there three or four weeks, on the diggings have returned home with gold to the value of £100 up to £300. The government are hastening themselves to provide a supply of water, with a good prospect of success, and if this is assured, the future of the gold field is certain. There is a vast extent of country similar, geologically speaking, to that where the gold has been found. It extends about 100 miles from west to east to the borders of New South Wales and Queensland, and is believed to be 50 or 60 miles in width from south to north. Although water is spoken of as comparatively scarce, it is not difficult to obtain by sinking. Wells in the neighborhood from 40 to 100 feet in depth yield an abundant supply. One well about 2 miles from the center of the gold field appears to be inexhaustible, as a stream-engine cannot pump it dry. It has been discovered that with very little trouble the water can be conveyed in pipes from the well onto the diggings, so that in future it should not be difficult to put the wash dirt through the cradles. The government geologist has reported very favorably on the prospects of the district as a gold-producing tract of country. In South Australia ironstone is about the most favorable matrix for gold, and ironstone abounds in the Teetulpa and adjacent districts. Gold may be easily seen with the unaided eye in good iron ore containing 50 per cent. of the baser metal, and in some cases from 40 to 80 ounces of gold per ton of stone by fire assay. The regularity of the reefs is worthy of note, their strike being singularly uniform, running in a line 10 degrees north of east, and they are very numerous throughout this country, many of them being gold bearing. It is also curious, as a fact, that most of the gullies or watercourses have a general direction north and south. At the northern end of the gully, where the alluvial gold was first found, is a large flat or alluvial plain very likely looking for deep sinking, say 50 or 60 feet. The geologist discovered very promising looking "wash" here, and the place is now being tested. Sixteen miles from the gold field, a little to the west of north, a bold hill, called Mount Victor, rises a prominent object. It has long been a favorite spot in the opinion of prospectors, who often assert that rich discoveries will be made around the mount. The prevailing rocks are quartz, ironstone, slate, and limestone. Fine specimens of gold in quartz and in ironstone have been found in several localities around, some of them being

worth a little more, out it generally has a slight mixture of impurities which detracts from its value.

ARTESIAN BORES AND WATER CONSERVATION.

Scarcely second in importance to the grand gold discovery is the success which has during the past year attended the operations of the water conservation department. In the month of September a bore made by the diamond drill at the Hergott Railway station, on the Great Northern line, which is being gradually extended across the continent, struck a strong spring at the depth of 348 feet. The water rose and flowed over the surface at the rate of about 3,600 gallons per hour, gradually increasing to 4,000 gallons. On pipes being fixed to convey it into the elevated tanks, placed at a height of 60 feet to supply the locomotives, the water rose to that height and flowed into the tanks. The supply still continues unabated. Shortly after this another bore was put down at Strangways Springs, about 65 miles northwest from Hergott. Here at the depth of 308 feet a much stronger spring was struck, the water rising with considerable force in a fountain 9 feet in height, at the rate of 1,000,000 gallons per day. The surrounding country being flat, was soon flooded for miles around. Unfortunately, the presence of a small portion of magnesian salts in the water rendered it unfit for irrigation purposes. It has, however, since improved in this respect. A third bore in the same district, and about 25 miles distant from the former, and in a northerly direction, has also been successful. It should be stated that in these localities there were natural springs previous to the boring, but the supply of water from them was limited. The quality of the water is excellent, quite good for domestic use as well as for stock. The source of supply is supposed by geologists to be in the great dividing range on the southern part of Queensland, some 700 miles distant from the site of the bores. The rainfall on this range is enormous—60 to 70 inches in the year—and it is supposed to percolate through the strata until it reaches a retentive stratum which appears to continue in the form of a huge basin for the distance mentioned. It is therefore considered probable that over this immense area artesian bores may be sunk with the certainty of success. Another most important discovery of water has been made in a part of the country more in need of it than those just mentioned. It is in the southwestern portion of the province, near the border of Western Australia, on the "Mellabar Plains," hitherto a waterless country, and having a limited rainfall. The bore was put down to the depth of 749 feet, when a spring of fine water was struck which rose to within 150 feet of the surface. The benefit to the country resulting from these artesian wells will be very great. Another bore is now commenced a few miles further inland, in the southwest district. The Government is also very anxious to provide a supply of water for the diggings, and it is probable the drills may also be set to work in [illegible] though the conservation of water does not think favorably [illegible] In the settled districts a consid- [illegible] repairing,

PUBLIC WORKS.

In public buildings but little has been done of importance excepting the Jubilee Exhibition building, which will be a handsome and permanent erection. Harbors, jetties, and light-houses are in a state of efficiency, although within the last year considerable reduction has been made in expenditure, owing to the depression existing. The gross expenditure of the marine board for the year has been chiefly for deepening operations in the principal ports, amounting to £49,778. Some important additions have been made to the forts for the defense of Port Adelaide, and a site has been selected for another fort at Glenelg. A further supply of ordnance, torpedoes, &c., is on the way from England.

MAIN ROADS.

The length of main roads in South Australia on June 30, *i. e.*, under control of the department was 4,127 miles, and the expenditure on them for the year was £156,840.

RAILWAYS AND OTHER PUBLIC WORKS.

The length of government railway lines open for traffic on June 30, 1886, was 1,203 miles, or 140 miles more than at the end of 1885. There is also a considerable length of railways in course of construction and which will very shortly be completed. The line connecting Adelaide with Melbourne was opened on May 1 as far as the South Australian border, about 100 miles; the remainder, on the Victorian side, was opened in September right through to Melbourne, when some of the splendid American boudoir cars (sleeping) were brought into use. The railway to the Silver district in New South Wales is fast approaching completion, and work has been commenced on the northern end of the transcontinental line, at Port Darwin.

The passenger traffic for the year ending June 30 was 3,961,650, and the total tonnage of goods carried was 742,942 tons. The earnings per train mile were 67.52 pence, and the cost per train mile were 45.47 pence. The earnings from the railway amounted to £549,092, leaving a net profit of £178,438, equal to 2.37 per cent. on the capital invested in lines open for traffic, which is £7,553,500.

THE SOUTH AUSTRALIAN JUBILEE EXHIBITION.

In the present year (1886) the colony of South Australia has completed the fiftieth year of its existence, having been formally proclaimed a British province by Capt. J. Hindmarsh, the first governor of the colony, who arrived on December 25, 1836. The colonists fixed the year 1887 for their Jubilee Exhibition, chiefly to avoid interfering with the Colonial and Indian Exhibition held in London this year, and partly to make it contemporary with the jubilee of the reign of Queen Victoria. A handsome building for the exhibition has been erected within the city bounds, but on a splendid site away from the business portions of the place. The erections, including annexes, &c., will cover

the Doric style, and the upper floor Ionic. The building is 115 feet in height to the top of the central dome. The main hall is 150 feet in length by 86.9 in width and 56 feet in height to the center of the roof. A handsome colonnade and terraces surround the building, and as the ground has a very steep slope towards the bank of the river Torrens, retaining walls and terraces with flights of steps have been built at the rear. On either side of the great hall is a court, each measuring 150 feet by 60 feet. The western annex is divided into eight courts, each 200 by 50 feet. The eastern annex is smaller and of irregular shape. Sheds for machinery, &c., will be erected on the flat nearer the river. The contract price for the main building is about £20,000, the annexes about half as much. The government is expending £32,000 by the authority of parliament, but to Mr. E. T. Smith, the present mayor of the city of Adelaide, belongs the credit of bringing to a successful issue the project of the exhibition, he guaranteeing £5,000 to the government and induced several leading colonists to guarantee £20,000 more, so that the public funds should be safe from loss. A branch line from the Central Railway station will be constructed to the exhibition grounds for the convenience of bringing the exhibits right onto the spot. A considerable amount of space has been applied for by English and colonial exhibitors, and it is expected that the United States will, as usual, be well represented. Intending exhibitors wanting an agent to represent and look after their interest can be safe by sending their goods to the address of the United States consular agent, Port Adelaide, with instructions how to act.

J. W. SMITH,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Port Adelaide, December 18, 1886.

MALTA.

Report of Consul Worthington.

There have been no changes made in the port dues and custom duties since my last annual report of February 18, 1886.

I cannot submit to your Department a more excellent and trustworthy résumé of the trade of Malta during the year 1886 than the one Mr. Charles Breed Eynaud, merchant and banker of this island, has just favored me with. Mr. Eynaud's figures and statements are more reliable than the statistics officially published here. His report is as follows:

MALTA, *February* 18, 1887.

JOHN WORTHINGTON, Esq.,
Consul for the United States of America, Malta:

DEAR SIR: I beg herewith to give you a general review of the trade of Malta in 1866, with some statistics bearing thereon.

Again precautions against the introduction of cholera into the island were taken in 1886 by the imposition of quarantine, and in some instances by a refusal to receive arrivals from ports considered infected. These interdicts affected in their turn, or sometimes simultaneously, the following countries, viz: Austria, Continental Italy, Spain, Barbary, Sardinia, Sicily; also ports on the Danube and west coast of the Black Sea. These restrictions continued, although at times mitigated, until December 7 ultimo, when the last suspected country received free pratique. At the present moment the commerce of the island with all countries is entirely unshackled in this respect. The year 1886 is remarkable as showing the first check in the progressive increase in our important trade of coaling steamers. From the figures that follow it will be seen that the decrease in arrivals of merchant steamers in 1886, as compared to 1885, was in number 820, and in tonnage 816,053, and that we imported less coal in 1886 by 112,474 tons than in 1885. Of the steamers calling here bound to or coming from the Suez Canal the decrease in the year was in number 293, and in tonnage 325,676. This latter cannot be attributable to quarantines, as arrivals from and to that direction were not affected in this respect.

The most reasonable conclusions are the dullness of trade, and that the size of steamers making such voyages is much larger than heretofore, and the adoption of improvements in machinery economizing fuel is becoming general, and Malta being only a distance of four or five days' steaming to or from Port Said, this port can be more conveniently passed than formerly. Trade in 1886 also shows a diminution in imports of the following articles, viz: Manufactured tobacco, petroleum, cheese, coffee, and olive oil, and an increase in leaf tobacco, alcohol, flour, codfish, salmon, lard, butter, Florida water, and rice; but in all articles of trade margins of profit have been small, and in many instances losses have been felt.

COAL.

The total importations in 1886 amounted to 506,322 tons, as follows:

Whence imported.	Tons.
South Wales, England	450,550
The North Country, England	39,757
Mersey, England	14,065
Antwerp, Belgium	1,950
	506,322

Against total importations in the subjoined years:

Year.	Tons.	Year.	

The arrivals in our harbor in 1886 were as follows: 176 men of war, 3,604 merchant steamers, 1,257 merchant sailing vessels, 42 steam and sailing yachts; total, 5,079; against a total of 5,992 in 1885, 5,522 in 1884, 5,974 in 1883, 6,675 in 1882, 5,830 in 1881, 4,962 in 1880, and 5,043 in 1879.

The mercantile steamers arrived in 1886 were:

Nationality.	No.	Tons.
British	3,023	3,825,225
French	164	176,088
Italian	151	78,875
Norwegian	73	59,936
German	69	76,098
Greek	42	40,126
Belgian	21	23,987
Austro-Hungarian	19	16,538
Ottoman	17	16,239
Danish	10	8,632
Russian	5	3,326
Spanish, 3; Dutch 3	6	5,090
Swedish	2	1,365
American, United States	1	1,548
Japanese	1	1,197
Total	3,604	4,334,270

Against a total of 4,424 in 1885, measuring 5,150,323 tons register, of which 3,846 were British, and 3,853 in 1884, measuring 4,371,548 tons register, of which 3,346 were British, and 4,228 in 1883, measuring 4,675,231 tons register, of which 3,675 were British, and 4,625 in 1882, measuring 4,821,487 tons register, of which 3,847 vessels were British, and 3,885 in 1881, measuring 3,681,725 tons register, of which 3,175 were British.

Of the 1,257 sailing merchant vessels arrived in 1886, measuring register tons 106,193, 815 were Italian, measuring 50,573 tons; in 1885, 1,380 sailing merchant vessels arrived, measuring 125,645 tons; in 1884, 1,528 sailing vessels arrived, measuring 132,944 tons; in 1883, 1,579, measuring 152,673 tons; in 1882, 1,789, measuring 116,083 tons; and in 1881, 1,728, measuring 177,072 tons.

Among the arrivals in 1886 are 1,103 vessels, which called here bound to or coming from eastern ports via the Suez Canal. Of these 22 were men of war, 25 transports, and 1,056 merchant steamers, which latter measured 1,756,449 tons. The number of passengers on board all these vessels was 52,904, civilian and military. The figures for the previous six years were as follows:

Description.	1885.	1884.	1883.	1882.	1881.	1880.
Men-of-war	24	16	12	13	11	27
Government transports	30	22	21	24	22	32
Merchant steamers	1,349	1,172	1,227	1,133	1,042	809
Tons register of merchant steamers	2,082,125	1,849,424	1,674,745	1,421,701	1,365,263	1,378,489
Number of passengers	59,132	51,461	44,776	43,469	37,720	46,289

Of the arrivals in 1886, 7 sailing vessels—5 Italian, 1 British, 1 Austrian—discharged cargoes from United States ports; 4 however only brought part of cargoes; 16 steamers, laden at ports farther east, called here bound to United States ports; 11 steamers put in here with cargoes laden in the United States for ports to the east of this; 7 steamers left this in ballast to proceed to other Mediterranean ports to load for the United [illegible] steamers from New York bound east through the Suez Canal was [illegible] of war called here and took coal.

the most remunerative to import, and when low-class fillers are more abundant and cheap then we require a larger proportion of common leaf to medium wrappers. At the present moment two-thirds of our stock consists of medium to good leafy Kentucky lugs, which would work up in themselves with a small help of wrappers. Cheap, sound Kentucky and Virginia fillers are scarce.

The cigar trade, although improving, is not so important as in 1883 and further back.

The importations in 1886 of leaf in hogsheads show a large increase on the previous year, in fact are nearly double. Our supply has again in 1886 been largely drawn from Italy, being the refused from the régie contracts, viz, tobacco that did not come up to the class required or contracted for, or had imperfections, or the repacked from damaged parcels. The following are the particulars of the importations of leaf in 1886, viz:

Whence imported.	Hogsheads	Cases and bales.
United States	159	9
England	326	168
Italy	568	88
Antwerp	43	3
France	14	177
Gibraltar	14	117
Other ports	3	8
Total	1,127	570

Importations of American leaf from 1879 *to* 1885.

Year.	Hogsheads.	Cases and bales.	Year.	Hogsheads.	Cases and bales.
1878	874	362	1882	892	471
1879	1,433	111	1883	1,632	515
1880	1,076	195	1884	120	415
1881	788	338	1885	602	579

AMERICAN MANUFACTURED TOBACCO.

Cavendish, &c., for chewing and smoking; the importations in 1886 show a small falling off on those of 1885. They were:

	Packages.
From England	1,589
From the United States	448
From Antwerp	59
From Gibraltar	105
From France	10
Total	2,211

Importations of American manufactured tobacco from 1878 *to* 1885.

	Packages.		Packages.
1878	2,163	1882	3,175
1879	2,477	1883	1,632
1880	2,754	1884	2,124
1881	2,098	1885	2,740

CIGARS.

Of the imports of 1886 there were 44 cases from the East Indies and a few cases of Havana, but the larger part were of German manufacture for the supply of the better classes, as the strong-flavored Malta cigar, which retails as low as 9*d* per 100, is smoked generally by the lower classes.

REFINED PETROLEUM.

This market only takes refined in cases.

	Cases.
Stock in depot on January 1, 1886	33,014
Imported in 1886	56,685
Total	89,699
Delivered in 1886	50,240
Stock on January 1, 1887	39,459

The importations in 1885 amounted to 64,682 cases, which were only exceeded in one year since 1876. In 1886 the imports consisted of 26,182 cases Pratt's radiant, 18,000 cases Pacific, 12,326 Atlantic, and 177 cases Russian petroleum.

ALCOHOL.

In 1886 the importations were 941 butts and hogsheads German or Continental distilling, estimated to contain 81,520 American gallons; 213 barrels American, 9,800 American gallons; total, 91,320 American gallons against a total of importations in 1885 of 86,915 gallons, and 82,080 in 1884. In 1886 there were 185,500 gallons spirits, including liquors, entered for local consumption and paid duty.

WHEATEN FLOUR.

Although the relative duty on wheat and flour is such as to afford some protection to millers, still we had quite a novelty last year by the introduction into Malta of 5,380 bags (of 165 pounds each) Braila flour, which sold freely for bread-making at from 12*s*. 1½*d*. to 13*s*. 3½*d*. per 100 pounds c. i. f.

American, Trieste, and French flour is imported almost entirely for pastry cooks and to supply shipping. All these three sorts sustained their figures in imports last year as compared with those of 1885.

Importations in 1885 *and* 1886.

Description.		1886.	1885.
Braila	bags	5,380	.....
American	barrels	3,354	3,213
Trieste	do	593	177
French	do	488	489
Algeria	bags	35	160
Barrels and bags		9,850	4,039

In 1884 the importations were 2,982, in 1883 they were 2,687, in 1882 they were 5,088, in 1881 they were 2,791, and in 1880 1,971 barrels and bags. In 1886, 113,823 quarters hard wheat and 1,564,125 pounds of wheaten flour and maccaroni were entered for local consumption and paid duty.

CHEESE.

The entries in 1886 were 4,374 boxes, all, with trifling exceptions, American, received via England. In 1885 we imported 5,020 boxes, 2,852 in 1884, 2,625 in 1838, 4,005 in 1882, 2,951 in 1881, and 2,332 in 1880.

BUTTER AND BUTTERINE.

In 1886 there were imported 10,752 firkins and kegs, all from England, but mostly of American manufacture, against 7,662 packages in 1885. 4,764 in 1884, 4,748 in 1883, 4,035 in 1882, 4,364 in 1881, 2,828 in 1880.

FLORIDA WATER.

In 1886, 9,518 dozen bottles were imported, against 4,334 dozen in 1885, 4,317 in 1884, 7,925 in 1883, 6,580 in 1882.

CLEANED RICE.

In 1886 the entries were 15,251 bags of two hundredweight each. With the exception of a small quantity of Egyptian and Italian, all was Indian, received via England. None came here direct from Burmah.

Importations from 1879 *to* 1885.

2879	25,507	1883	12,266
1880	27,914	1884	8,041
1881	22,622	1885	12,446
1882	31,500		

The low price at which wheat ranged in 1886, affected the consumption of rice, although it could also be had throughout the year at moderate prices.

COFFEE.

Brazilian growth is the favorite here. In 1886, 5,193 bags were imported, nearly all via England, some coming from Italian ports. The imports were less than half of the quantity in 1885; but at the commencement of 1886 we had a large stock in the hands of speculators, which was gradually released as prices began to rise.

Importations from 1882 *to* 1885.

1882	11,737	1884	4,686
1883	9,868	1885	12,619

CODFISH.

Shore dried is very much preferred here. The soft is neglected, even at a considerable difference in price, when shore is obtainable.

This season has been characterized by a remarkable diminution in the export demand, so that our present stock is more than we shall require up to the end of Lent, when the consumption of codfish practically ceases, consequently holders show much anxiety to realize. In all 1886 we imported 8,715 quintals, of which 3,047 quintal arrived in the last half of the past season, and 5,668 from the commencement of the season to the end of 1886. The larger portion of the latter consisted of 2,800 quintals shore per Edith Eleanor which arrived in the first week of November from Newfoundland, and 1,700 quintals Norwegian, direct from the Baltic in the middle of November. These direct importations arrived much later than usual. They are generally looked for shortly after the middle of September. In 1885 there were imported 4,601 quintals, of which only one cargo of 2,365 quintals shore came direct.

PICKLED SALMON.

gallons, and in 1885, 346,048 gallons. I quote clear yellow in cisterns £31 12s. to £32 per ton of 300 American gallons, freight on board. This time last year the price was £35 7s. to £35 18s. 6d. per ton of 300 American gallons, free on board.

GOODS WITHDRAWN FROM BOND.

The following quantities of articles, subject to duty, were withdrawn from bond and dues paid for local consumption, viz:

Articles.	Quantity.	Articles.	Quantity.
Wheat ..... bushels..	910, 584	Potatoes ..... pounds..	9, 265, 725
Beans ..... do....	120, 624	Superior wines ..... gallons..	15, 356
Indian corn ..... do....	2, 128	Inferior wines ..... do....	2, 294, 921
Barley ..... do....	26, 096	Alcohol and spirituous liquors .do....	185, 501
Peas ..... do....	118, 088	Beer ..... do....	491, 152
Other pulse ..... do....	64, 536	Bullocks ..... head..	12, 649
Locust beans ..... pounds..	2, 121, 350	Horses and mules ..... do....	543
Cotton seed ..... do....	7, 475, 125	Olive oil ..... gallons	346, 481

As our custom-house does not oblige ship agents or importers to specify the contents of each package of goods entered, but allows the entries to be made in many instances under the general term of "merchandise," the foregoing statistics, which are collected privately, may not be exact; however, the totals are more likely to have exceeded than to have been less than the figures given.

I remain, &c.,

C. BREED EYNAUD,
United States Vice-Consul.

It may be of use to American exporters to know the names of the firms which do the largest shipping trade in this island, and therefore I give you the following list of such names, together with the number of steamships which arrived consigned to each firm:

List of firms and number of steamers consigned to them during the year 1886.

Names of firms.	No.	Names of firms.	No.
O. F. Gollcher & Sons	508	A. Von Kohen	22
Smith & Co	489	G. P. Sammut & Co	21
E. T. Agins & Co	489	F. Pace	19
T. G. Micallef & Co	273	To order	14
R. Ferro & Co	202	Strathatos Brothers	12
S. Micallef Eynand	193	Capt. W. R. Page	10
A. Camilleri	177	J. Azzopardi & Co	6
C. Kirton	164	A. Cachia & Brother	4
R. Denaro	144	S. Vincent & Son	4
G. Xerri	140	E. Sammut	3
F. D. Ancona	135	G. Buttigieg & Sons	2
B. Tagliaferro Sons	109	Petrocochino & Co	2
Walker & Pall	104	D. C. Pitala	2
F. Vella	104	Feli. Agins & Co	1
G. Scicluna & Sons	58	M. di S. Levy	1
M. Azzopardi	49	E. Denicola	1
C. Breed Eynaud	41	Gas Company	1
S. Grech & Co	29		
[illegible] & Co	26	Total	3,585
	26		

I am sorry to have to report that the average quality of refined petroleum imported from the United States was as inferior in 1886 as it was in 1885. The best ("Astral") oil that comes here is too high priced for common use, and the cheaper brands, which are commonly consumed by the islanders, very often very bad, ill-smelling, and affording inferior and imperfect illumination.

The retail trade in American manufactured goods sent here by English merchants, in English bottoms, is large, but might be largely increased, especially in the hardware lines. The extra cost of importing our goods that must be reshipped and recommissioned at English ports in order to get here at all, deters Maltese merchants from directly ordering them. They come in driblets, often on speculation, and lose their nationality when put on the shelves together with similar goods of other origin.

In spite of the existing drawbacks of exporting American goods direct, I believe that there are many articles that might be introduced into Malta with profit to the shippers. Such useful things as platform scales, type-writers, clothes-wringers, and even clothes-pins would find sale here. American organs and melodeons should be more generally introduced, and, when introduced, pushed. Mere introduction of useful goods will not always be followed by profitable trade. Push and patience, backed by capital, of course, are prime factors in business success here as well as in America. The successful way in which scores of American patent medicines have achieved permanent and profitable markets east of Gibraltar might well serve as an example of how to accomplish a desirable end. A few years ago an American tried, in a half-hearted way, to introduce a light iron plow—just the thing needed, too—to the use of the Maltese farmers. He brought the plows here and then sat in his office and dilated on their superiority over the wooden Maltese plow. But words never plowed a farm yet. While he was comfortably expatiating on the merits of the iron plow the Maltese farmer was turning his land with the wooden one. He should have proved by actual work wherein his iron instrument excelled the old-timers. The result was that the American plows never got a grip on Malta soil, and the agriculturists here still carry on their work with primitive means, preserving the customs and habits of their forefathers of very ancient times, for which reason agriculture in Malta requires an impulse and greater encouragement, which an American farmer would designate as a plow and a drag.

The Maltese manufacture all of their own carts and four-wheelers, and boats, which number up into the thousands. I believe the manufacturers of the latest carriage-maker's tools and irons in America would find sale for many of their simplest devices in iron work among these cart and wagon makers. Our sewing-machines ought to be in more extensive use here. So, too, with our specialties in hardware, in photographic apparatus, in shotguns, in saddlery goods, rubber goods, and many American novelties, known and unknown here.

And what I say of the possibilities of an increased trade in American goods in the Maltese islands applies with equal force to the markets of the towns of Northern Africa Lower Italy, and some of the Greek islands.

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